



2014

ANNUAL REPORT

COMMONWEALTH OF MASSACHUSETTS

PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION



2014 | Annual Report

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BOARD PROFILE INDEX

Adams 11	Fairhaven 38	MWRA 65	Revere 92
Amesbury 12	Fall River 39	Maynard 66	Salem 93
Andover 13	Falmouth 40	Medford 67	Saugus 94
Arlington 14	Fitchburg 41	Melrose 68	Shrewsbury 95
Attleboro 15	Framingham 42	Methuen 69	Somerville 96
Barnstable County 16	Franklin Regional 43	Middlesex County 70	Southbridge 97
Belmont 17	Gardner 44	Milford 71	Springfield 98
Berkshire County 18	Gloucester 45	Milton 72	State 99
Beverly 19	Greater Lawrence 46	Minuteman Regional 73	Stoneham 100
Blue Hills Regional 20	Greenfield 47	Montague 74	Swampscott 101
Boston (City) 21	Hampden County 48	Natick 75	Taunton 102
Boston Teachers 22	Hampshire County 49	Needham 76	Wakefield 103
Braintree 23	Haverhill 50	New Bedford 77	Waltham 104
Bristol County 24	Hingham 51	Newburyport 78	Watertown 105
Brockton 25	Holyoke 52	Newton 79	Webster 106
Brookline 26	Hull 53	Norfolk County 80	Wellesley 107
Cambridge 27	Lawrence 54	North Adams 81	West Springfield 108
Chelsea 28	Leominster 55	North Attleboro 82	Westfield 109
Chicopee 29	Lexington 56	Northampton 83	Weymouth 110
Clinton 30	Lowell 57	Northbridge 84	Winchester 111
Concord 31	Lynn 58	Norwood 85	Winthrop 112
Danvers 32	Malden 59	Peabody 86	Woburn 113
Dedham 33	Marblehead 60	Pittsfield 87	Worcester 114
Dukes County 34	Marlborough 61	Plymouth 88	Worcester Regional 115
Easthampton 35	MHFA 62	Plymouth County 89	PRIM 116
Essex Regional 36	Massport 63	Quincy 90	
Everett 37	MTRS (State Teachers) 64	Reading 91	

COMMISSION MEMBERS | 2014

CHAIRMAN



➤ **Philip Y. Brown, Esq.**
Chairman



VICE CHAIRMAN

➤ **The Honorable Suzanne M. Bump**
Auditor of the Commonwealth

COMMISSION MEMBERS | 2014



➤ **Kate Fitzpatrick**
Town Manager,
Town of Needham



➤ **Elizabeth Fontaine**
Deputy Director, Massachusetts
Educational Financing Authority (MEFA)



➤ **John B. Langan**
Deputy Director, Office of
Employee Relations



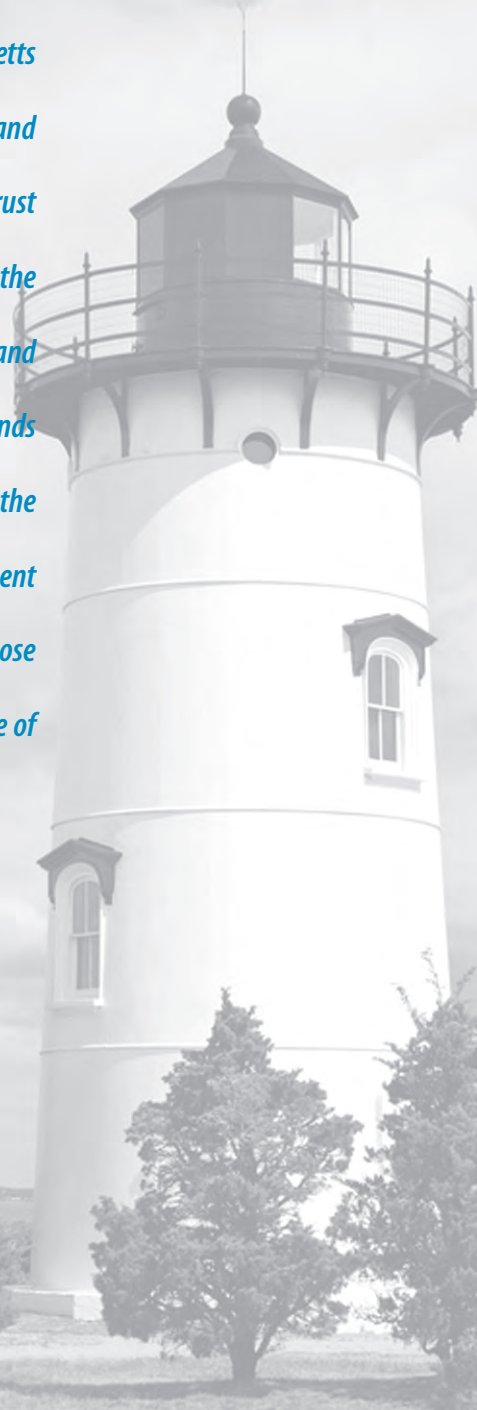
➤ **James M. Machado**
Sergeant, Fall River Police Department



➤ **Robert B. McCarthy**
President Emeritus of the Professional
Fire Fighters of Massachusetts

PERAC | MISSION STATEMENT

The Public Employee Retirement Administration Commission (PERAC) was created for and is dedicated to the oversight, guidance, monitoring, and regulation of the Massachusetts Public Pension Systems. The professional, prudent, and efficient administration of these systems is the public trust of PERAC and each of the 104 public pension systems for the mutual benefit of the public employees, public employers, and citizens of Massachusetts. The stewardship of the Trust Funds for the sole purpose of providing the benefits guaranteed to the public employees qualifying under the plans is the fulfillment of the obligation of the people of the Commonwealth to those who have dedicated their professional careers to the service of the people of the Commonwealth.



LETTER FROM THE | CHAIRMAN



The Public Employee Retirement Administration Commission is pleased to release this 2014 Annual Report reviewing the status of the Massachusetts' public pension plans.

This is the first Annual Report issued during my tenure as Commission Chairman. It is appropriate that we pause for a moment and reflect on the record of public service of my predecessor Judge Domenic J.F. Russo. In the too short a period that I had the honor of working with the Judge, his dedication, sense of fairness and good nature provided a shining example for all of us to follow. As we work to better our retirement system and secure the rights of employees, retirees and their beneficiaries our task will be easier if we use the Judge as our guide.

Since the publication of our last Annual Report Commissioner Donald Marquis, who served as the MMA appointee of the Auditor, has left the Commission. During his tenure, Commissioner Marquis brought his decades of local government experience to bear on complex retirement matters. Commissioner Marquis was a tireless advocate for the responsible management and adequate funding of our retirement systems. As an original Commissioner he played an instrumental role in all of PERAC's many accomplishments during his tenure. We wish him the best in his future endeavors.

Kate Fitzpatrick, Town Manager of Needham, has been selected by the Auditor to fill the MMA position on the Commission. In her short period of service Kate has shown an enthusiastic commitment to protecting our retirement system and enhancing the Commission's oversight.

As a consequence of my assumption of the duties as Chairman a vacancy was created in the seat on the Commission reserved for an individual with investment experience. Governor Deval Patrick appointed Elizabeth Fontaine, Assistant Executive Director of the Massachusetts Educational Financing Authority to insure that we have a full Commission.

Last year's Report it was noted that the systems were in the final stages of recovering from the 2008 market collapse. That process is now complete and we can move forward with addressing financial challenges in a measured, comprehensive and responsible manner.

The investment performance of the systems detailed in this Report generally tracked that of pension plans throughout the nation. The Composite Return of 7.81% compares well with the national median of 6.76% as set forth by TUCS Total Return of 145 Public Fund Master Trusts.* Although in 2014 returns ranged from 1.10% to 12.91%, most systems achieved returns between 7% and 9%. Long-range performance with very few exceptions exceeded 8% and in some cases was above 10%.

This data should be assessed in the context of the trend towards lower actuarial assumptions for investment returns that, under the leadership of PERAC Actuary Jim Lamenzo, has accelerated over the course of the last few years.

The daily press of business often prevents us from taking a long range view. Each day brings reports of public pension systems on the verge of collapse. Recent events in Chicago may be

a harbinger of the future for those who have not acted to address longstanding issues. In Massachusetts we stand out as having taken responsible, aggressive action to improve system finance and governance. This foresight has enabled us to weather the 2008 storm, to adjust to demographic changes and to preserve the core benefits available to members. Nonetheless, we must exercise care going forward and preserve the structural reforms that have contributed to these gains.

As always, the Commission and staff will use our best efforts to assist the retirement boards in safeguarding the interests of system members and beneficiaries.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Philip Y. Brown'.

Philip Y. Brown
Chairman

* **Performance Comparison** — Data for Wilshire Associates Universe Comparison Service is supplied by Wilshire's Manager Universe Database and by Wilshire's Cooperative Universe Service.

LETTER FROM THE | EXECUTIVE DIRECTOR



The Commission and staff are pleased to release this Annual Report on the Massachusetts Public Retirement Systems for 2014, a year in which public pension systems made marked progress towards enhancing their long term fiscal soundness. Building on the success in overcoming the investment losses suffered in 2008, retirement boards have adopted more conservative investment assumptions, updated mortality tables and addressed new accounting standards.

Unfortunately, as we overcome one set of challenges new threats to the stability and professionalism of the retirement system have arisen. There is now an effort to weaken the governance reforms embodied in Chapter 176 of the Acts of 2011. The procurement provisions of the statute mandating regular due diligence competitive searches, disclosure of secret payments made in connection with the vendor selection process, and transparency with respect to the basis of board decisions have increased confidence that retirement board decisions are made without undue influence.

In last years' Report I noted that because of the willingness of retirement board members to greet major change with calm and cooperation, concerns about procurement practices, educational standards, and transparency that have contributed to the clamor for the destruction of the Massachusetts' public pension funds and the repeal of benefits available to public employees in the Commonwealth, had abated. Any retreat from the very reforms that were the basis of this optimism represents a grave danger to the system's viability.

COMMISSION/STAFF CHANGES

As noted in last years' Report the retirement community was deeply saddened by the loss of PERAC Chairman Dominic Russo. The Judge's steady leadership and warm smile helped the Commission through many challenges.

Commissioner Phil Y. Brown was elected Chairman of the Commission in the wake of the Judge's passing. He is a prominent Boston attorney and served as Chairman of the Special Commission on Group Classification.

Chairman Brown has proven to be a thoughtful, dedicated and knowledgeable leader and we look forward to working with him in the years ahead.

Other changes on the Commission were the appointment of Kate Fitzpatrick as the MMA representative. Kate replaced former Arlington Town Manager Don Marquis, one of the original members of the Commission. Don provided insight and brought his years of local experience to the issues confronting the retirement community. He was a staunch advocate for fully funding pension and health care liabilities and his penetrating questions kept PERAC staff on their toes.

Kate is no stranger to retirement issues as she has served on the Needham Retirement Board and on the Special Commission to Study the Contributory Retirement System. Presently she is the Town Manager of Needham and has served at the local and state level for over two decades. Her experience has already assisted the Commission in its corporate governance and internal management.

Earlier this year Governor Deval Patrick appointed Elizabeth Fontaine to the Commission to fill the vacancy created in the "investment" seat by the selection of Commissioner Brown as Chairman. Commissioner Fontaine serves as Assistant Executive Director of the Massachusetts Educational Financing Authority (MEFA). At MEFA she has spearheaded the development of the Commonwealth's programs to assist parents and students in meeting the costs of higher education. Commissioner Fontaine is the PERAC expert on matters related to finance and investment. The Commission has already tapped that knowledge base with respect to several pension financing issues.

Staff changes took place during the year as PERAC Director of Information Technology Paul Laliberte retired after sixteen years of leading PERAC's technology efforts. Paul's dedication and professionalism ensured that the Commission remains at the forefront of technological innovation and that the use of technology in the retirement context would be maximized. In particular Paul maintained PERAC's systems and upgraded software and hardware resulting in the ability to efficiently process information, communicate with our constituencies and operate at the highest levels of performance.

In the wake of Paul's departure Dan Boyle has been appointed Information Technology Director. He comes to us with over 19 years of IT experience most recently serving as IT Director at the Executive Office of Education. In his new position Dan has initiated a systematic review of the PERAC IT environment, upgrading security features and improving ease of use for PERAC staff.

Other staff changes included the departure of Auditor Jim Ryan who has assumed the position as Executive Director of the Malden Retirement Board. Auditor John Shea moved on to the Norwood Retirement Board and receptionist Joan Arsenault retired. We wish Jim and John well in their new endeavors as well as the best to Joan in her retirement. Michael Pasternak was hired to augment the Audit Unit in the wake of these departures and Patricia Tanso filled Joan's position. Other staff additions have included Cheryl Johnson as Compliance Analyst. Cheryl is a Chartered Financial Analyst who has previous experience in the investment industry. She works with Compliance Officer Tom O'Donnell and Compliance Counsel Derek Moitoso.

CHINESE DELEGATION

In August of 2014 a delegation of twenty three senior officials from the Chinese province of Zhejiang visited PERAC to discuss the workings of the Massachusetts' public pension system. PERAC staff made presentations about the agency's mission, history and management structure as well as its functions and responsibilities.

The importance of fiduciary duty in the management of pension plans and the role of regulatory oversight were explored. Finally a short course in Actuarial Basics was presented.

China and its provinces are in the early stages of reassessing the retirement system in the country as it moves to a more market based economy.



Joe Connarton addresses the Chinese Delegation from the province of Zhejiang.

EMERGING ISSUES FORUM

PERAC held its Tenth Emerging Issues Forum at the College of the Holy Cross in September 2014. Over two hundred and seventy-five people participated as board members attending received three educational credits. Opening remarks by Treasurer Steve Grossman congratulated the Commission for its decade of interesting and informative sessions. The Treasurer was well received as he addressed a variety of topics including pension reform, the record of the PRIT Fund and the importance of maintaining defined benefit retirement systems. He concluded by thanking the retirement community for its support and professionalism throughout his term in office. A centerpiece of the Forum was an extensive discussion of recent accounting pronouncements by the Governmental Accounting Standards Board (GASB). That Board has published GASB Statements 67 and 68 which effect how local governments report pension liabilities and expenses. Across the country pension funds, accountants and actuaries are grappling with the need to meet these new standards. The first panel included PERAC Actuary Jim Lamenza, Bill Connolly of Segal, David Driscoll of Buck Consultants and Larry Stone of Stone Consulting. That part of the program began with a Why, What, When and Who of GASB 67 and 68 providing a general overview of the new reporting guidelines. Details relative to dates and timing as well as the need to coordinate the statements of the pension plan and the statements of the plan sponsor were reviewed. This session concluded with a discussion of cost-sharing plans and their treatment under GASB 67 and 68. The second GASB panel included Linda Bournival of KMS Actuaries, Frank Biron of Melanson Heath and Brock Romano of KPMG. This group focused on planning, preparation and

collaboration necessary for implementation of the standards as well as “best practices”. The final topic covered focused on the audit implications pertaining to testing of census data.

Secretary of State William Galvin gave the keynote address of the Forum. The Secretary reviewed the issue of securities regulation as it pertains to pensions and retirement. His office oversees the activities of broker-dealers and agents, investment advisers and investment adviser representatives. His presentation included a discussion of abuses in the offering of securities for sale and providing investment advice investigated by his Securities Division. Secretary Galvin concluded his remarks by congratulating the Commission on its efforts to enhance transparency in the investment of public pension funds.

The Forum concluded with a panel focused on Understanding Investor Adviser Registration and Private Fund Due Diligence. Attorneys Daren Domina and Heather Wyckoff from Haynes & Boones were joined by Michael Garrity of the SEC’s Boston office and PERAC Compliance Counsel Derek Moitoso. The intricacies of registration, the due diligence resources available to investors and the importance of oversight of fund expenses were emphasized. Ms. Wyckoff entertained the attendees with a recitation of some of anecdotes regarding some expenses that general partners had attempted to charge to the fund.

For the tenth year this excellent program informed and educated retirement board members, administrators, actuaries, attorneys, investment professionals and other attendees. The second decade of these Forums will kick off on September 17, 2015 at Holy Cross.



Treasurer Steve Grossman gives opening remarks at the 10th Emerging Issues Forum.



Keynote speaker Secretary of State William Galvin addresses the Forum.



GASB 67/68

PERAC's Emerging Issues Forum provided an overview of the implications of new promulgations by GASB on the retirement systems. It is important to remember that Statement 67 and Statement 68 affect financial reporting for pension plans. GASB 67/68 do not impact plan funding but relate solely to accounting and financial reporting.

This represents an effort to ensure standardization in financial reporting. The focus is on measuring plan liabilities, plan assets, asset allocation, pension expense and other related items.

The key in meeting these requirements is collaboration among various parties including the retirement board, employer, actuary, auditor (both plan and employer), and investment consultant.

The retirement board's responsibilities include assuring the completeness and accuracy of the census data and a fair presentation of the plan financial statements and investment policy.

GASB 67/68 represents an effort to ensure standardization in financial reporting. The focus is on measuring plan liabilities, plan assets, asset allocation, pension expense and other related items.

The actuary's responsibilities include the actuarial valuation and determination of GASB 67/68 liabilities such as the pension expense, net pension liability, and the schedule of changes in net pension liability.

The investment consultant's responsibilities may include documenting target allocations and expected rates of return by asset class and the

calculation of the money weighted rate of return. For retirement boards invested in the PRIT Fund, PRIM will provide much of this information.

The plan auditor's responsibilities, if an independent plan audit is conducted, include an audit of the plan financial statements, testing accuracy of census data, and testing footnote information.

The employer's auditors' responsibilities include the audit of the employer financial statements and the determination of the appropriateness of the new disclosures.

Although meeting these standards is a challenge for the retirement boards and staff, we are hopeful that by working together compliance will be universal.

WEB SITE

PERAC's Communications Unit is hard at work transitioning our current web site to the Mass.gov portal. The goal of the new website is to make information easier to locate, modernize technology, and migrate to a platform that will be continuously updated. Working with the Unit is a team of web designers and usability experts from Mass.gov.

Part of the redesign with the site is to rethink the website itself from a catch-all of everything published by PERAC to a platform for disseminating newer and more current information. With that in mind, once we transition to the new site; we will no longer house every Memo and Annual Report as older documents will be available on site or on the state library's website.

PERAC has taken the comments of retirement board members and administrators into account in deciding how to best organize the site, but if you have further suggestions, contact the Communications Director at nadunker@per.state.ma.us.

LEGAL ISSUES

PERAC has prevailed at the Massachusetts Appeals Court in the case of PERAC v. David Madden et al. The Court agreed with the Commission that Madden having last performed the duties of Mayor, a Group 1 position prior to his retirement should be retired from that Group rather than Group 4. David Madden had served as a Weymouth firefighter, and later was appointed Fire Chief. While serving as Fire Chief he was elected Mayor and ultimately served two terms, having taken a leave of absence from the Chief position. According to Civil Service law he was entitled to be reinstated as Fire Chief at the conclusion of his service as Mayor. As his second mayoral term was ending he sought reinstatement as Fire Chief. Under an agreement with his successor and the existing Fire Chief, Madden was purported to be reinstated following a voluntary two day demotion of the incumbent. He then sought a superannuation retirement under group 4. The Weymouth Retirement Board approved that application however, PERAC rejected the Board action asserting that Madden should be retired under Group 1 as the last duties he performed were those of Mayor.

The Appeals Court concluded:

A person voluntarily assuming a position of elevated authority but diminished retirement benefits must abide by that choice.

The decision was not appealed further and is now final.

In another closely watched case regarding excess earning the Commission has once again prevailed in the matter of former Medford firefighter Paul Conway. Conway, a 50% owner of a roofing company, received a disability retirement in 2001. Prior to receiving the retirement allowance he had transferred his interest to his wife. Acting on a tip asserting that Mrs. Conway did no work for the company and that the ownership transfer was designed to avoid the earnings limitations in the statute, the Commission initiated an investigation in 2010. PERAC determined Conway had earnings above the allowable limit for years 2004-2007 requiring a refund to the system of \$154,237, the amount of his retirement allowance paid in the period. In 2011 the Medford Retirement Board determined that, in its view, Conway had no excess earnings. PERAC rejected that assertion and

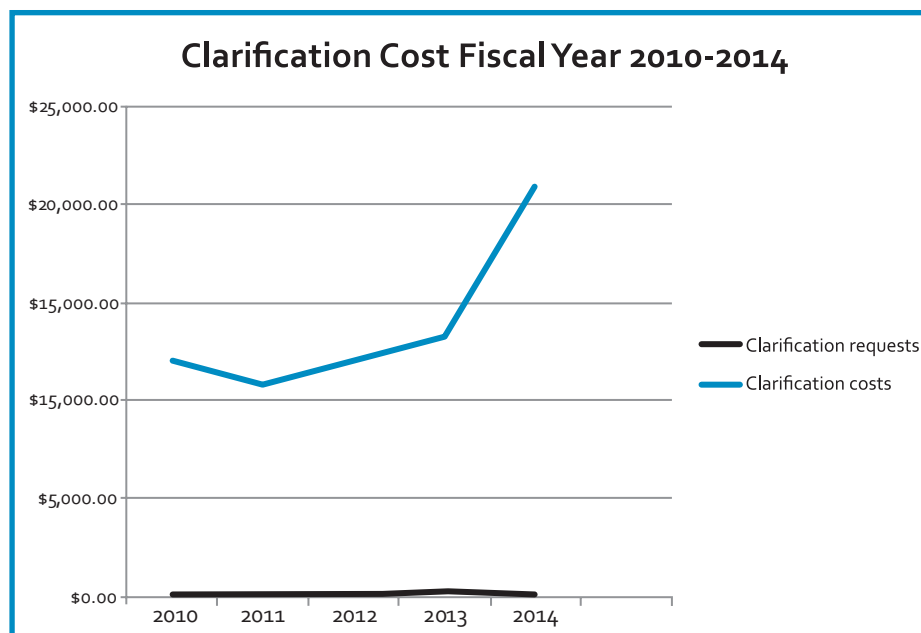
Medford appealed. DALA upheld the Commission position. The case proceeded to the issue of the level of earnings and penalty. DALA ruled that Conway had a significant role in the business; the wages he was paid did not reflect his contribution; Mrs. Conway's role was limited to administrative matters; and her work did not substantially contribute to the company's profits by focusing on the "fair value" of labor rather than the wages paid.

In making the decision the Magistrate relied on the case of *Steere v. Dukes County Retirement Board* and PERAC CR-09-312 which held that income from a spouse's ownership in a business may be attributable to a retiree for purposes of calculating excess earnings under Section 91A where the retiree's labor, management, or supervision contributed to that income.

Conway has appealed the case to the Contributory Retirement Appeals Board.

MEDICAL PANEL CLARIFICATIONS

Since inception the Commission has processed and, in certain circumstances encouraged, retirement boards to seek clarifications from medical panels when warranted. However, as the accompanying chart underscores, the expense associated with these requests has increased dramatically in the last few years. PERAC has prepared regulations for filing that attempt to maintain the integrity of



the medical panel process while making certain that such clarification requests are relevant and medical in nature. It was not that long ago that the disability benefits available under Chapter 32 were in jeopardy because of assertions that the cost was too great and the review process biased toward approval of the application. Reforms in the medical panel process adopted several decades ago established confidence that reviews would be comprehensive, fair and objective. We must work together to avoid reigniting the controversy over the manner in which disabilities are approved so that the benefit structure will remain intact.

Fiscal Year	# of Requests	Cost
2010	199	\$12,050.00
2011	178	\$10,825.00
2012	189	\$12,125.00
2013	239	\$13,225.00
2014	191	\$20,850.00

CONCLUSION

The year 2014 was a year when the retirement systems returned to a sense of normalcy following nearly a decade of pension reform, capital markets uncertainty and public skepticism. Investment returns again generally mirrored the markets and the experience of the retirement boards peers around the country. Progress in actuarial soundness, expanding the educational opportunities for board members, and administrative improvements have, for the moment, stalled what seem to be endless cries for dismembering our retirement system and gutting retirement benefits.

Some disturbing trends, particularly with respect to efforts to neuter governance reforms that

The year 2014 was a year when the retirement systems returned to a sense of normalcy following nearly a decade of pension reform, capital markets uncertainty and public skepticism.

have been the foundation of improving the public image of our pension system, threaten this progress. It would indeed be a shame if after weathering the storm of capital collapse, fiscal strain and public controversy these efforts reignited the movement to destroy what so many have fought to maintain.

The record of fiscal prudence, compassionate administration and steady stewardship reflected in these pages has been a counter to this negativism. Let us work together to expand on this record

and put to rest once and for all the movement to restructure the system and radically change the benefits available to our members and their beneficiaries.

Sincerely,

Joseph E. Connorton

Joeseeph E. Connorton
Executive Director

MASSACHUSETTS CONTRIBUTORY | RETIREMENT BOARD PROFILES

INTRODUCTION

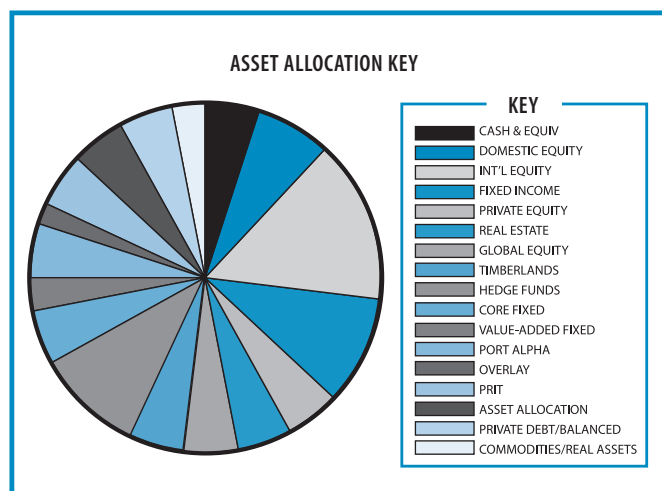
The Board Profile section of the PERAC Annual Report provides a detailed assessment of some of the important indicators relative to the financial health of the retirement systems. The information provided in this report can enable board members to provide factual comment and advice to policymakers as various proposals relative to the retirement law are assessed. Through this and other studies, the Commission seeks to provide objective, comprehensive, and accurate data for use by all interested parties.

A WORD ON PORTFOLIO VALUATIONS

In assessing investment performance, PERAC relies on the retirement boards to submit accurate and complete information about investment activity. PERAC numbers might differ from those provided to a board by its consultant because PERAC measures all assets, including monies not committed to investment management.

Asset allocation is once again presented in graph form. The way a board allocates its assets among the various investment classes available to it has long been recognized as the prime determining factor in the generation of returns.

Allocation information reported by the investment consultants advising the retirement boards or PRIM forms the basis of these graphs. PERAC has not independently confirmed the accuracy of this data. The Key used for the Asset Allocation graphs is shown below.



ACTUARIAL

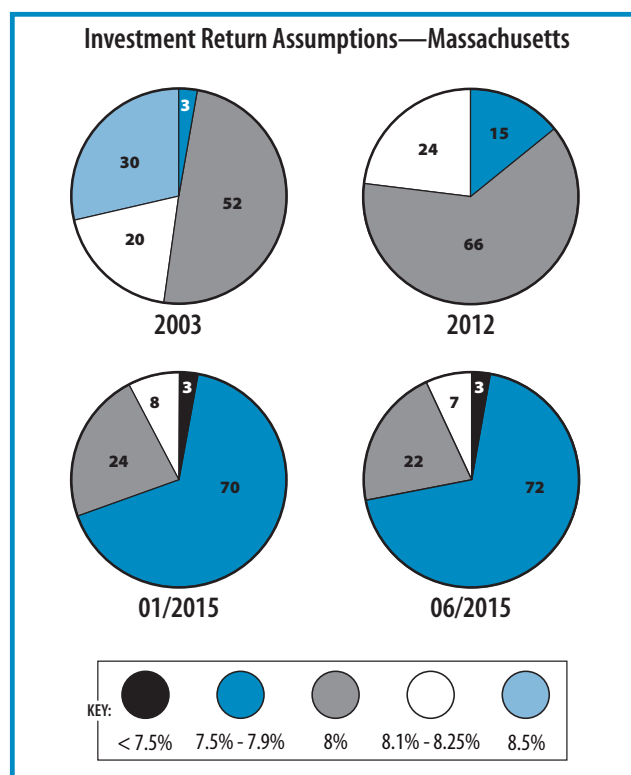
As always, actuarial information details the fiscal condition of the systems, which can play a direct role in state and local budgets. The funded ratio indicates the extent to which assets cover system liabilities. When the system will pay off its unfunded liability and what type of funding technique is being used are also noted. PERAC has consistently urged boards to conduct actuarial valuations in order to provide an up-to-date assessment of the fiscal condition of the system.

The Funding Schedule item reflects the amortization schedule for the Unfunded Actuarial Liability (UAL). For example, 1.5% increasing with a year fully funded of 2030 means the UAL is being amortized on a 1.5% annually increasing basis to FY30.

A number of systems utilize phase-in schedules in which payments increase more rapidly over the first few years of the schedule than later in the schedule. We reflect those schedules using the ultimate amortization schedule and note there is a phase-in. For example, "4.0% Increasing Phase-in" with a year fully funded of 2035 means the total appropriation increases 8.0% per year for a period of time and then the remaining unfunded liability is amortized on a 4.0% annual increasing basis until FY35. Twenty-two systems currently use a phase-in approach and both the percentage increase and number of years before the amortization begins vary. Schedules described at "Total Increasing" mean the annual appropriation increases by the amount indicated, which may vary, for the entire schedule. Forty-six systems have such a schedule. In total, about two-thirds of systems utilize a phase-in and/or total increasing schedule.

PERAC approved 78 revised funding schedules and completed 27 actuarial valuations (including interim valuations) in 2014. The valuations complemented the 49 valuations performed by private actuaries. The Actuarial Unit also completed the annual actuarial valuation of the Commonwealth's pension liability. Throughout the year, PERAC responded to legislative and gubernatorial requests for analysis of legislation and made presentations at several forums.

The Massachusetts Investment Return Assumption from 2003 to present is illustrated below.





MEDICAL PANELS/POST RETIREMENT EARNINGS

In addition to the information detailed in the Profiles, PERAC, as always, has been busy assisting the boards in other areas. In 2014, 669 medical panel requests were processed and 1302 comprehensive medical evaluations were conducted. This led to the approval of 573 disability applications and 24 accidental death claims. Eight medical re-examinations of disability retirees took place.

Such medical evaluations and examinations resulted in 5 members returning to work saving \$314,456.

PERAC is responsible for the post-retirement monitoring of disabled retirees. One aspect of that task is enforcing the earnings limits set forth in Chapter 32. In 2014, PERAC analyzed 15,699 earnings reports, 3,792 retirees reported earnings and 125 earned in excess of the statutory limits. An additional 91 retirees failed to comply with the reporting requirement. This resulted in the identification of \$1,167,922 in excess earnings and \$1,334,305 for non-compliance. In addition 38 retirees waived their allowance saving \$512,247.

No members' retirement benefit was modified under the Commission's Modification Policy in 2014. This review to date has resulted in the modification of 14 member retirement allowances. Savings due to that action total \$325,124 annually.

In 2014, 669 medical panel requests were processed and 1302 comprehensive medical evaluations were conducted. This led to the approval of 573 disability applications and 24 accidental death claims. Such medical evaluations and examinations resulted in 5 members returning to work saving \$314,456.

AUDITS

In 2014 PERAC conducted 27 audits of retirement systems. In addition, 12 follow-up audits were issued. In the last few years the Commission has awarded Certificates of Achievement to those systems found by our auditors to be operating in an exemplary fashion. In 2014 we issued 5 Certificates of Achievement. As always, PERAC audit staff conducted annual seminars on the preparation of the Annual Statement.

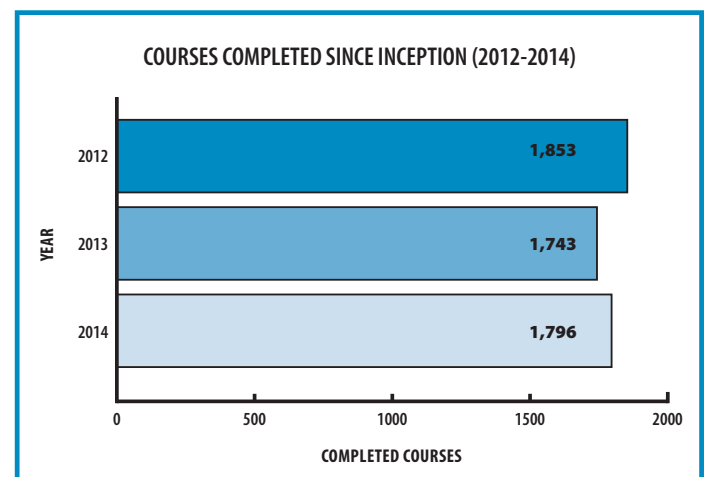
COMPLIANCE UPDATE

Chapter 32 mandates that retirement board members complete training during each year of service on the retirement board. Failure to meet this mandatory requirement will prohibit the member from serving beyond the conclusion of the term for which the training requirement was not met.

Since this program began several retirement board members have become ineligible for service on retirement boards due to failure to fulfill the education mandate.

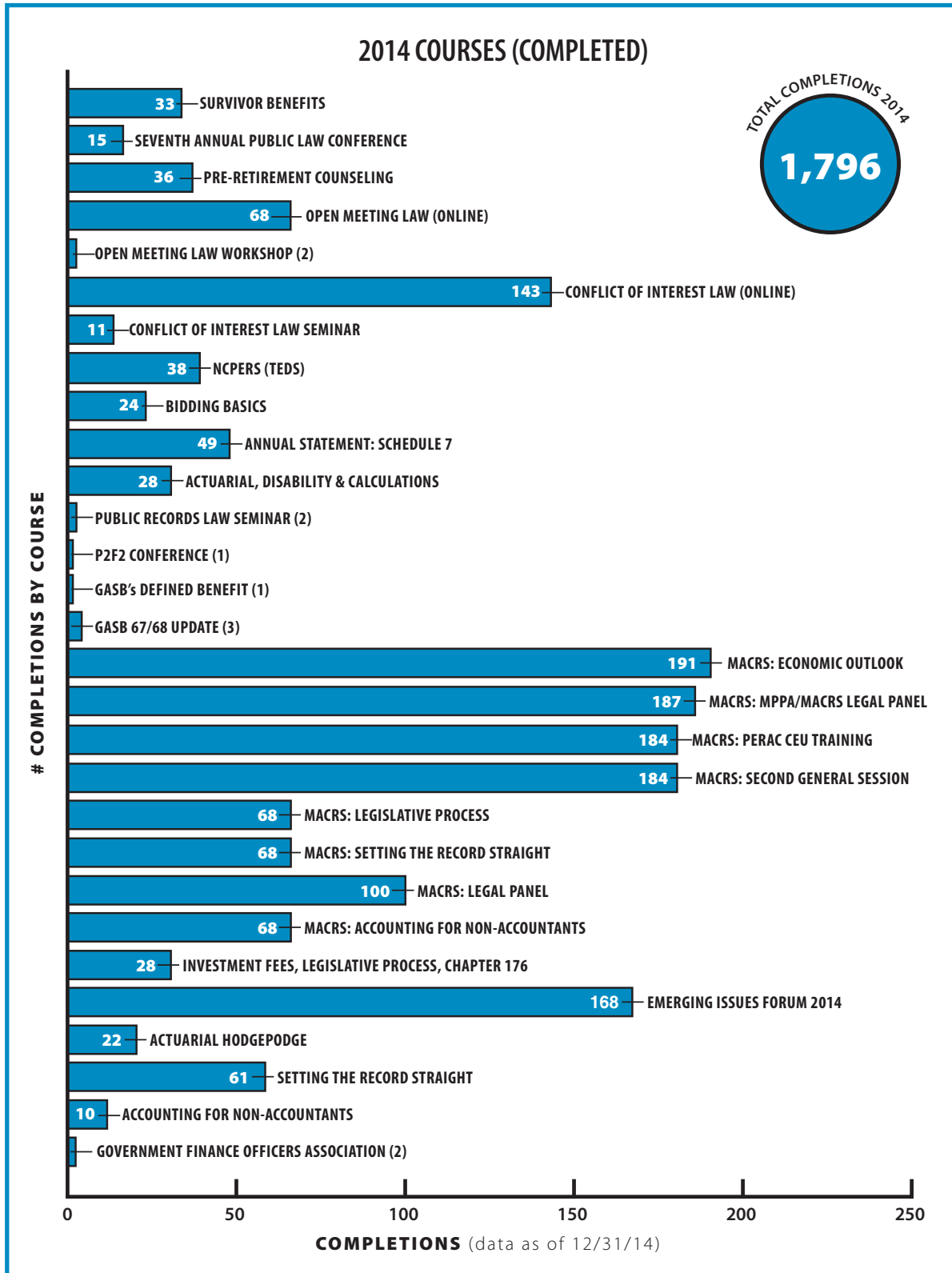
The Commission has expanded the opportunities for board members to fulfill this obligation through expanding web based educational events, increasing credit for non PERAC programs, and scheduling numerous educational sessions across Massachusetts.

The following graph provides an overview of the total number of courses completed from the inception of the program up through 12/31/14.



COMPLIANCE UPDATE (Continued)

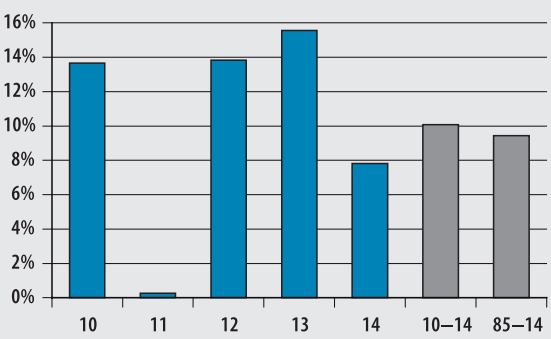
The following graph provides a breakout of the courses completed in 2014.



COMPOSITE INVESTMENT PROFILE

- ▶ Commonwealth of Massachusetts
- ▶ Public Employee Retirement Systems and Pension Reserves Investment Trust

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



INVESTMENT

- | | |
|--------------------------|----------|
| ▶ 2014 Return | 7.81% |
| ▶ 2014 Market Value | \$74.3 B |
| ▶ 2010-2014 (Annualized) | 10.08% |
| ▶ 1985-2014 (Annualized) | 9.43% |

Adams

Town Hall
8 Park Street, 3rd Floor
Adams, MA 01220
Phone 413-743-5575
Fax 413-743-2815

Board Members

Bernard Pinonnault (Chairperson),
Mary Beverly, David Clark, Allen Mendel,
Patricia Wol

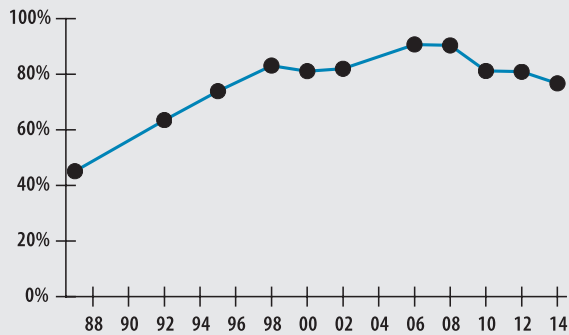
Board Administrator

Cheryl J. DeMarsico

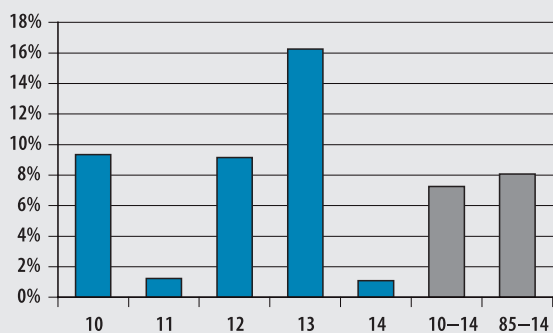
Board Meeting

Fourth Monday of each month at 4:00 pm

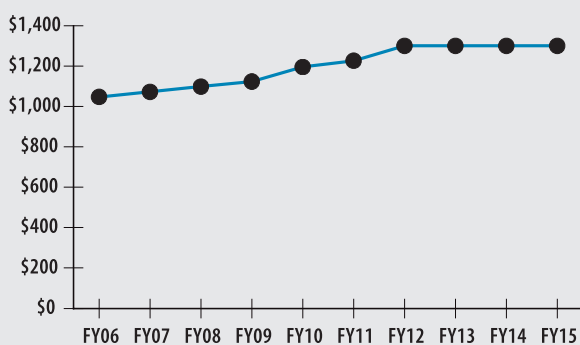
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.08%

29 years 2013
8.33%

28 years 2012
8.05%

10 years 2014
4.95%

10 years 2013
5.63%

10 years 2012
5.39%

5 years 2014
7.27%

5 years 2013
10.68%

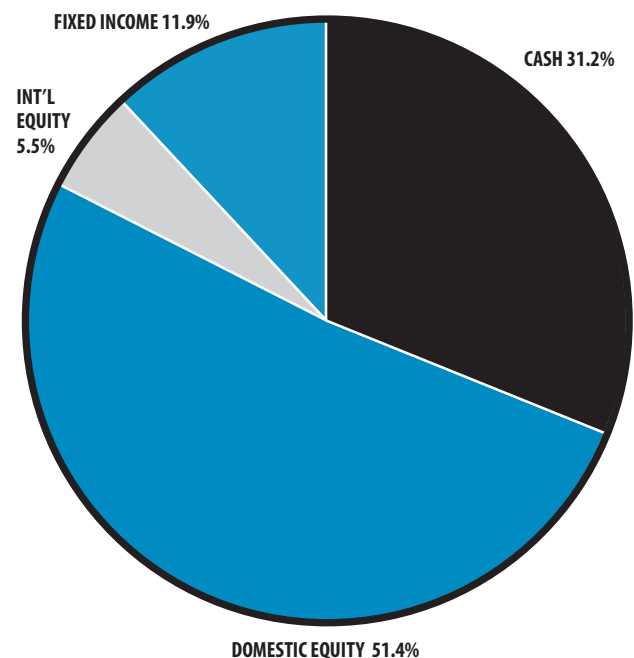
5 years 2012
2.26%

ACTUARIAL

▶ Funded Ratio	76.7%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.00%
▶ Funding Schedule	5.0% Total Increasing
▶ Year Fully Funded	2031
▶ Unfunded Liability	\$9.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$1.3 M

	ACTIVE	RETIRED
▶ Number of Members	200	127
▶ Total Payroll/Benefit	\$6.3 M	\$1.9 M
▶ Average Salary/Benefit	\$31,700	\$15,000
▶ Average Age	48	72
▶ Average Service	12.3 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	7
▶ Number Who Reported Earnings	2
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	1.10%
▶ 2014 Market Value	\$32.1 M
▶ 2010-2014 (Annualized)	7.27%
▶ 1985-2014 (Annualized)	8.08%

Amesbury

Town Hall
62 Friend Street
Amesbury, MA 01913-2825
Phone 978-388-8131
Fax 978-388-6727

Board Members

Charles Benevento (Chairperson),
Donna Cornoni, Michael Cronin,
Mary Marino, David S. Van Dam

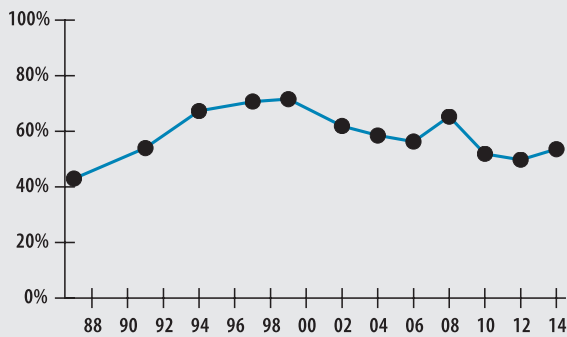
Board Administrator

Kevin Caira

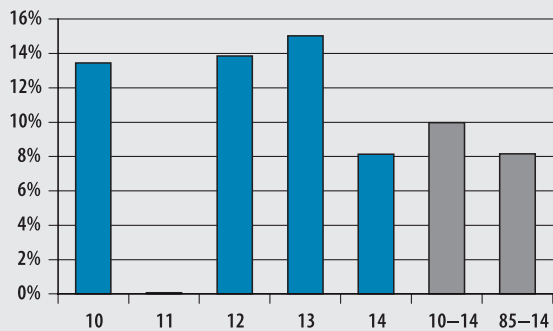
Board Meeting

Last Thursday of each month at 1:30 pm

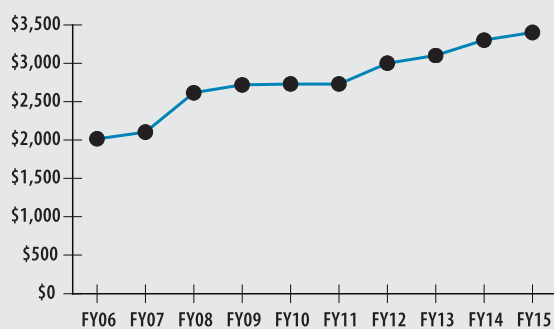
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.15%

29 years 2013

8.15%

28 years 2012

7.91%

10 years 2014

6.09%

10 years 2013

6.33%

10 years 2012

6.72%

5 years 2014

9.97%

5 years 2013

11.84%

5 years 2012

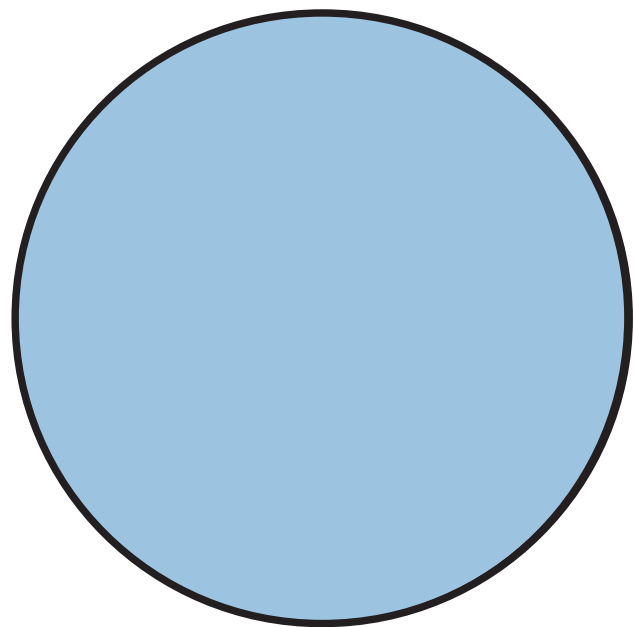
1.57%

ACTUARIAL

▶ Funded Ratio	53.6%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.25%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2035
▶ Unfunded Liability	\$37.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.4 M

	ACTIVE	RETIRED
▶ Number of Members	252	233
▶ Total Payroll/Benefit	\$12.3 M	\$4.6 M
▶ Average Salary/Benefit	\$48,900	\$19,900
▶ Average Age	NA	73
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	13
▶ Number Who Reported Earnings	8
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.14%
▶ 2014 Market Value	\$48.6 M
▶ 2010-2014 (Annualized)	9.97%
▶ 1985-2014 (Annualized)	8.15%

Andover

Town Offices
36 Bartlet Street
Andover, MA 01810
Phone 978-623-8213
Fax 978-623-8471

Board Members

James A. Cuticchia (Chairperson),
Elena M. Kothman, Thomas P. Hartwell,
Theodora K. Moccia,
Anthony K. Stankiewicz, Esq.

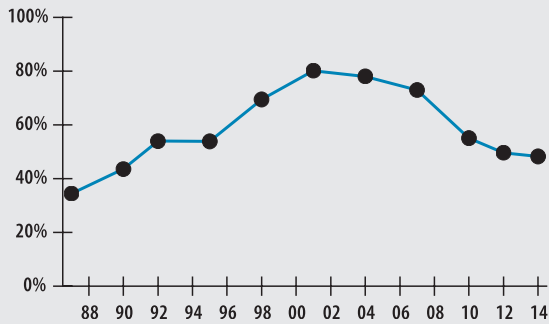
Board Administrator

Elena M. Kothman

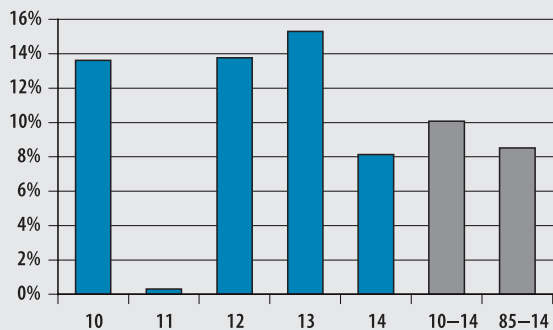
Board Meeting

Day and date vary

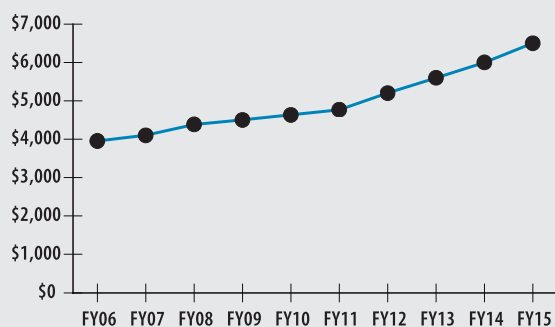
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.53%

29 years 2013
8.54%

28 years 2012
8.31%

10 years 2014
5.61%

10 years 2013
5.42%

10 years 2012
5.35%

5 years 2014
10.08%

5 years 2013
11.96%

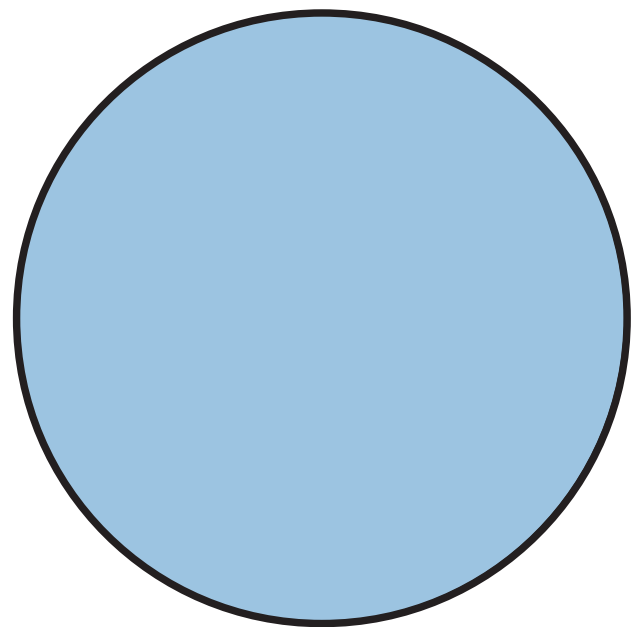
5 years 2012
1.52%

ACTUARIAL

▶ Funded Ratio	48.3%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	8.0% Total Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$110.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$6.5 M

	ACTIVE	RETIRED
▶ Number of Members	733	413
▶ Total Payroll/Benefit	\$36.5 M	\$11.2 M
▶ Average Salary/Benefit	\$49,800	\$27,200
▶ Average Age	49	NA
▶ Average Service	12.1 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	33
▶ Number Who Reported Earnings	11
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.13%
▶ 2014 Market Value	\$115.1 M
▶ 2010-2014 (Annualized)	10.08%
▶ 1985-2014 (Annualized)	8.53%

Board Members

John J. Bilafer (Chairperson),
Kenneth Hughes, Richard Keshian,
Ruth Lewis, Ken Steele

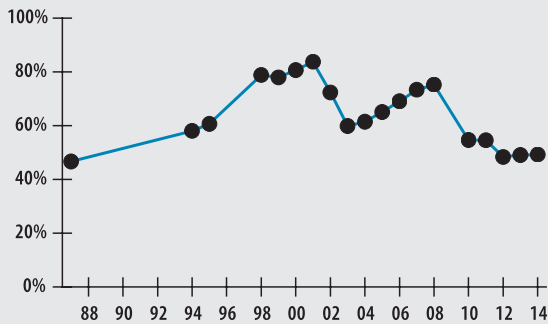
Board Administrator

Richard Greco

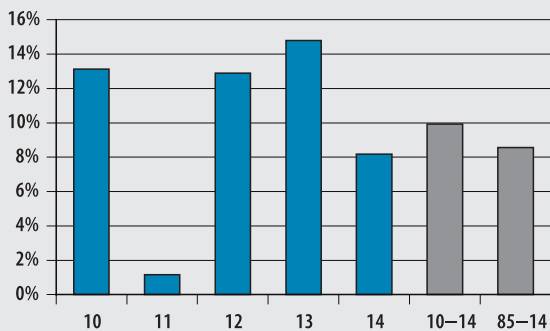
Board Meeting

Last Thursday of the month

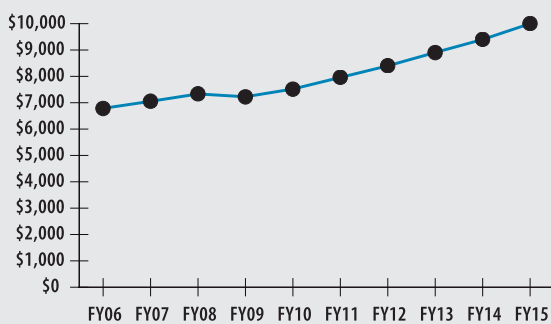
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.56%

29 years 2013

8.57%

28 years 2012

8.35%

10 years 2014

4.87%

10 years 2013

5.22%

10 years 2012

6.19%

5 years 2014

9.92%

5 years 2013

11.23%

5 years 2012

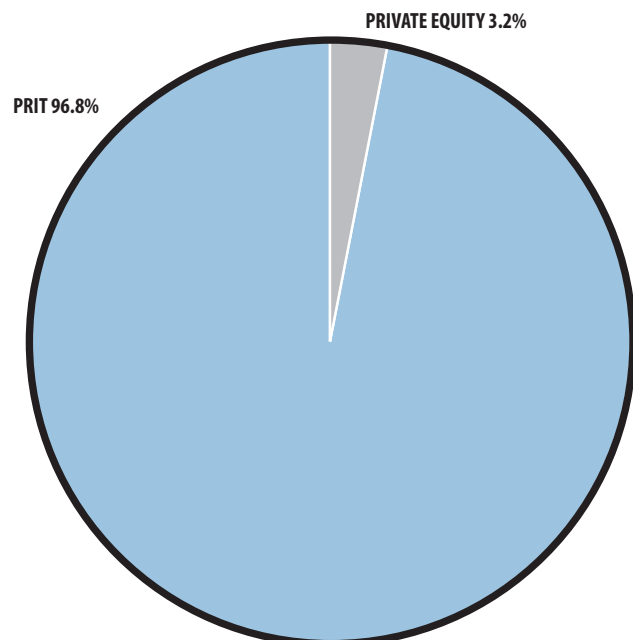
0.47%

ACTUARIAL

▶ Funded Ratio	49.3%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.50%
▶ Funding Schedule	5.5% Total Increasing
▶ Year Fully Funded	2033
▶ Unfunded Liability	\$126.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$10.0 M

	ACTIVE	RETIRED
▶ Number of Members	693	623
▶ Total Payroll/Benefit	\$31.8 M	\$16.2 M
▶ Average Salary/Benefit	\$45,900	\$26,000
▶ Average Age	47	74
▶ Average Service	10.7 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	78
▶ Number Who Reported Earnings	16
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.19%
▶ 2014 Market Value	\$134.8 M
▶ 2010-2014 (Annualized)	9.92%
▶ 1985-2014 (Annualized)	8.56%

Board Members

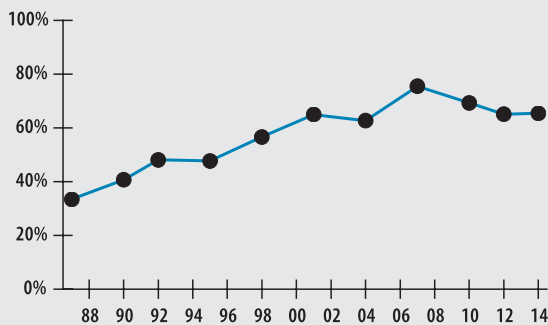
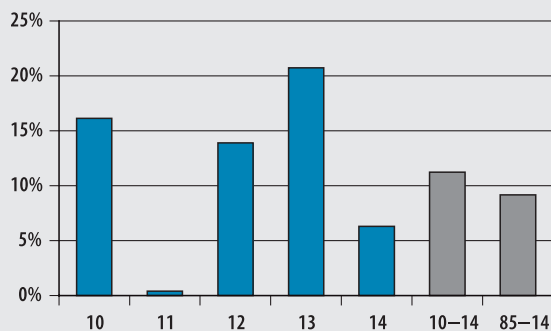
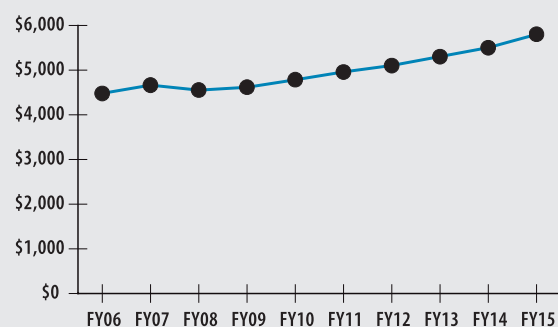
Gary S. Sagar (Chairperson),
Richard V. Boucher, James M. Castro,
Deborah C. Gould, Raymond B. Slater

Board Administrator

Leslie J. Ring

Board Meeting

Varies, usually the last week in the month

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

9.18%

29 years 2013

9.28%

28 years 2012

8.89%

10 years 2014

7.22%

10 years 2013

7.95%

10 years 2012

8.10%

5 years 2014

11.26%

5 years 2013

14.08%

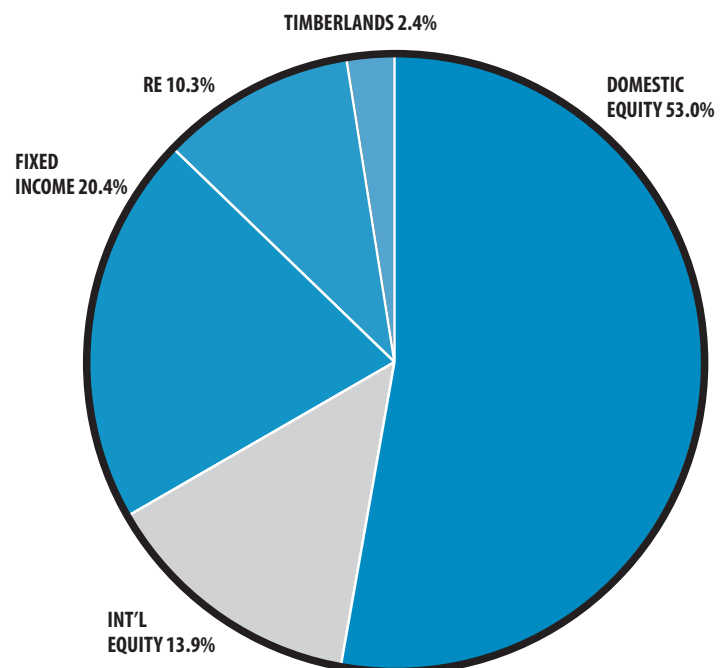
5 years 2012

3.04%

ACTUARIAL

▶ Funded Ratio	65.4%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2034
▶ Unfunded Liability	\$59.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.8 M

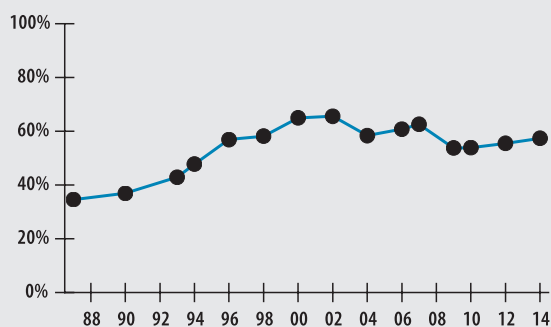
	ACTIVE	RETIRED
▶ Number of Members	632	390
▶ Total Payroll/Benefit	\$29.2 M	\$9.4 M
▶ Average Salary/Benefit	\$46,300	\$24,200
▶ Average Age	48	73
▶ Average Service	13.0 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

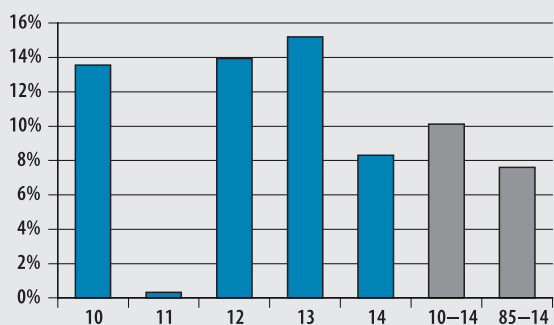
▶ Number of Disability Retirees	39
▶ Number Who Reported Earnings	11
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	6.32%
▶ 2014 Market Value	\$127.2 M
▶ 2010-2014 (Annualized)	11.26%
▶ 1985-2014 (Annualized)	9.18%

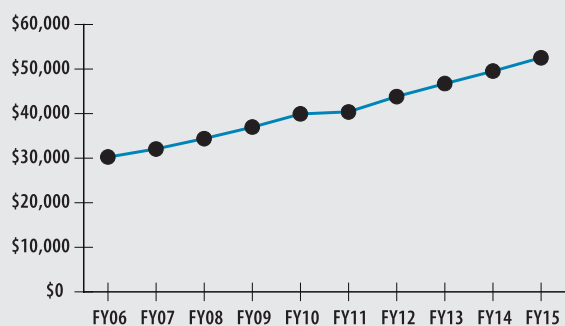
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
7.60%

29 years 2013
7.58%

28 years 2012
7.32%

10 years 2014
6.00%

10 years 2013
6.32%

10 years 2012
6.98%

5 years 2014
10.12%

5 years 2013
11.79%

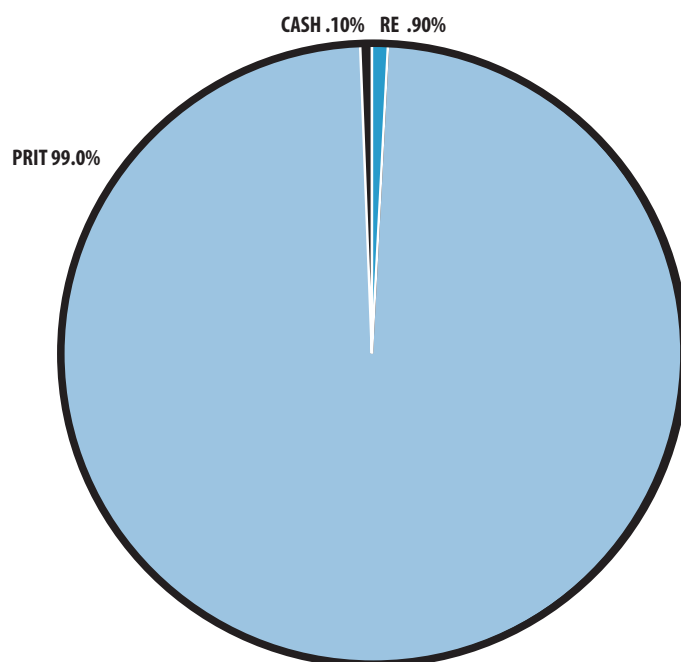
5 years 2012
1.44%

ACTUARIAL

▶ Funded Ratio	57.4%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$576.8 M
▶ Total Pension Appropriation (Fiscal 2015)	\$52.5 M

	ACTIVE	RETIRED
▶ Number of Members	4,696	2,729
▶ Total Payroll/Benefit	\$253.9 M	\$63.1 M
▶ Average Salary/Benefit	\$54,100	\$23,100
▶ Average Age	49	71
▶ Average Service	12.2 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	328
▶ Number Who Reported Earnings	113
▶ Number of Excess Earners	2
▶ Total Amount of Refund Due	\$32,037.24

▶ 2014 Return	8.30%
▶ 2014 Market Value	\$859.4 M
▶ 2010-2014 (Annualized)	10.12%
▶ 1985-2014 (Annualized)	7.60%

Belmont

Town Hall Annex
P.O. Box 56, 455 Concord Avenue
Belmont, MA 02478-0900
Phone 617-484-8560
Fax 617-993-2793

Board Members

Rosario A. Sacco (Chairperson),
Thomas F. Gibson, Esq., James Sloman,
Chitra Subramanian, Walter D. Wellman

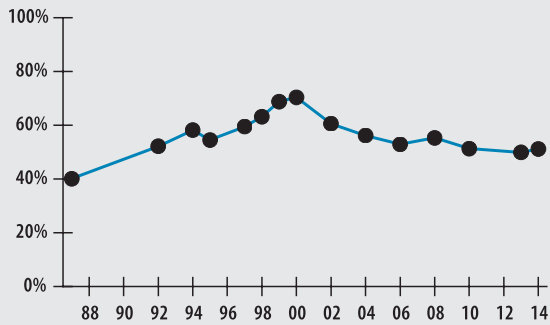
Board Administrator

Marion E. Coté

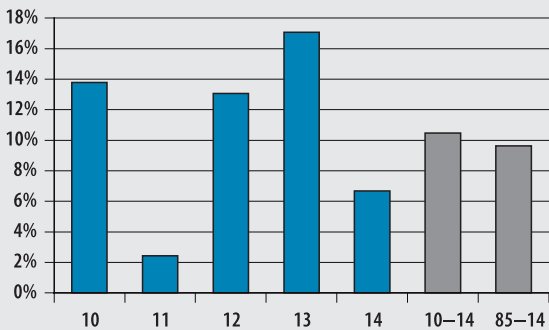
Board Meeting

Varies

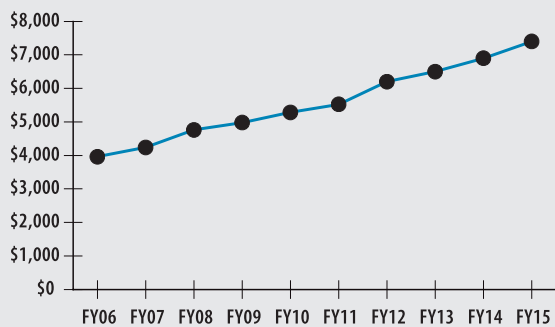
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.63%

29 years 2013

9.73%

28 years 2012

9.48%

10 years 2014

8.27%

10 years 2013

8.87%

10 years 2012

9.19%

5 years 2014

10.48%

5 years 2013

14.25%

5 years 2012

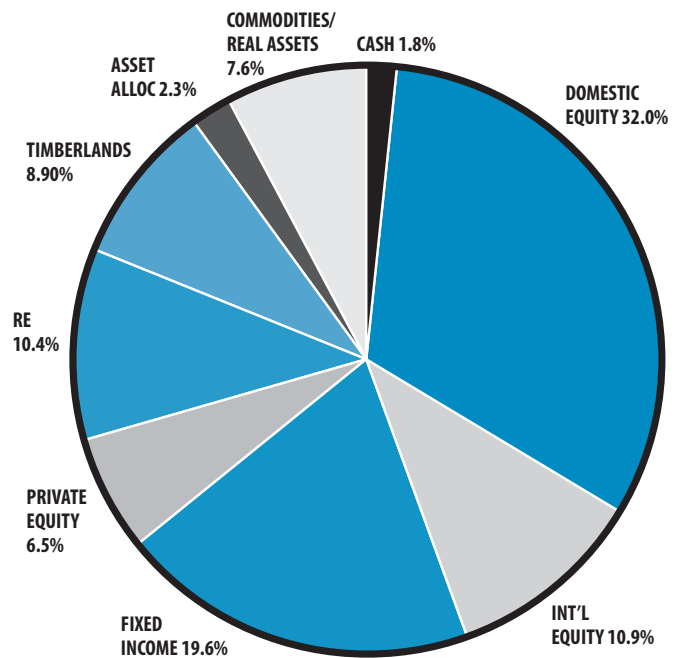
5.20%

ACTUARIAL

▶ Funded Ratio	51.2%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	6.97% Total Increasing
▶ Year Fully Funded	2027
▶ Unfunded Liability	\$73.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$7.4 M

	ACTIVE	RETIRED
▶ Number of Members	458	346
▶ Total Payroll/Benefit	\$24.2 M	\$9.4 M
▶ Average Salary/Benefit	\$52,800	\$27,000
▶ Average Age	46	74
▶ Average Service	11.6 years	NA

ASSET ALLOCATION (12/31/14)

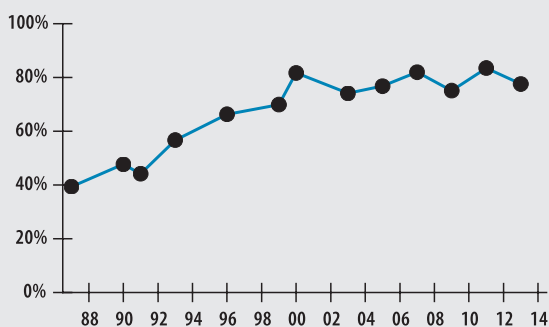


EARNED INCOME OF DISABILITY RETIREES (2013)

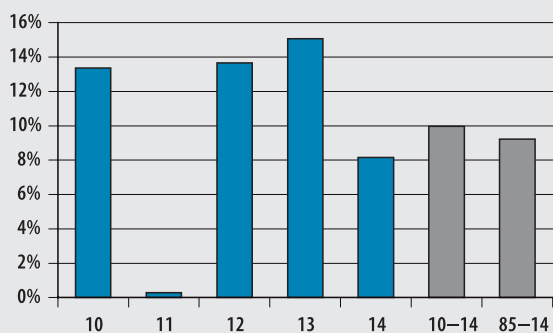
▶ Number of Disability Retirees	38
▶ Number Who Reported Earnings	12
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	6.69%
▶ 2014 Market Value	\$84.4 M
▶ 2010-2014 (Annualized)	10.48%
▶ 1985-2014 (Annualized)	9.63%

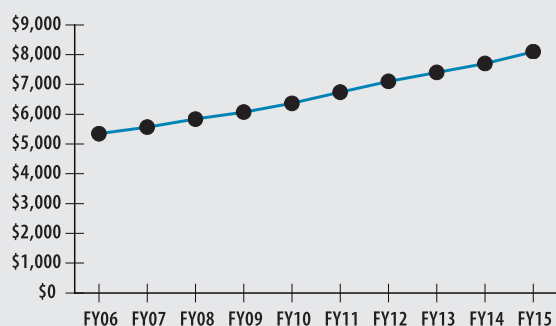
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.22%

29 years 2013
9.25%

28 years 2012
9.05%

10 years 2014
7.04%

10 years 2013
7.61%

10 years 2012
8.55%

5 years 2014
9.97%

5 years 2013
11.85%

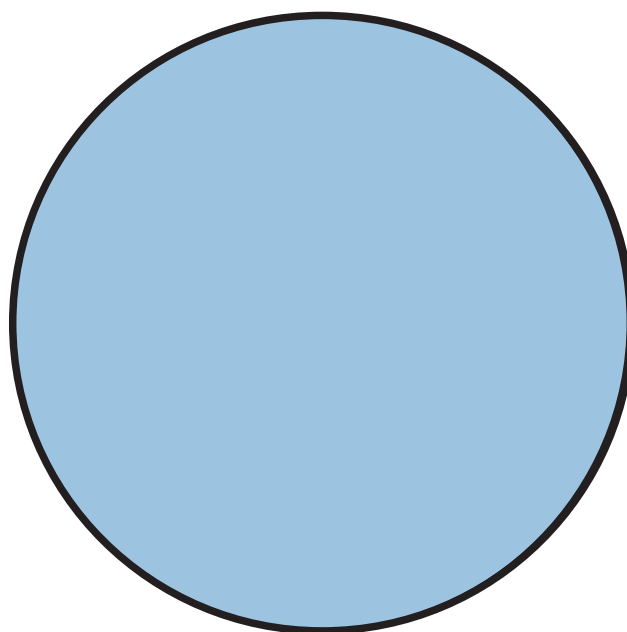
5 years 2012
1.53%

ACTUARIAL

▶ Funded Ratio	77.6%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.7% Total Increasing
▶ Year Fully Funded	2025
▶ Unfunded Liability	\$44.8 M
▶ Total Pension Appropriation (Fiscal 2015)	\$8.1 M

	ACTIVE	RETIRED
▶ Number of Members	1,165	697
▶ Total Payroll/Benefit	\$41.2 M	\$9.9 M
▶ Average Salary/Benefit	\$35,400	\$14,200
▶ Average Age	50	74
▶ Average Service	11.4 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	26
▶ Number Who Reported Earnings	6
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.16%
▶ 2014 Market Value	\$193.3 M
▶ 2010-2014 (Annualized)	9.97%
▶ 1985-2014 (Annualized)	9.22%

Beverly

City Hall
191 Cabot Street
Beverly, MA 01915
Phone 978-605-2370
Fax 978-921-8582

Board Members

John F. Lane, Jr. (Chairperson),
Carol I. Augulewicz, Bryant Ayles,
Richard F. Pierce, Kevin D. Smith

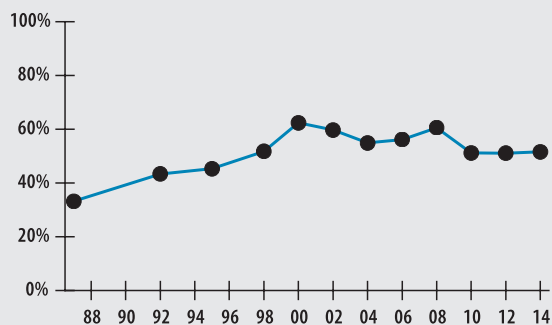
Board Administrator

Barbara Wells

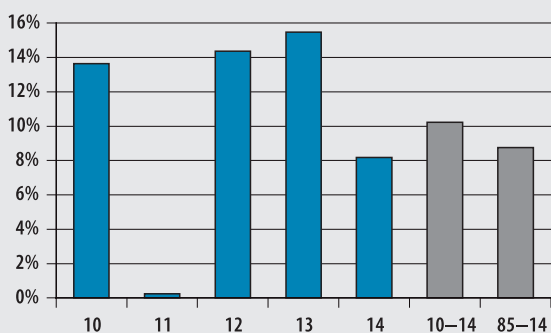
Board Meeting

Last Thursday of each month

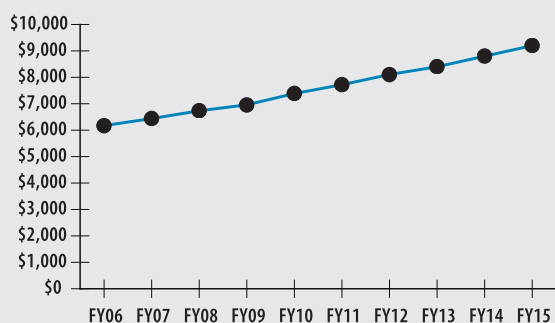
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.76%

29 years 2013
8.78%

28 years 2012
8.55%

10 years 2014
5.38%

10 years 2013
5.86%

10 years 2012
6.48%

5 years 2014
10.23%

5 years 2013
12.11%

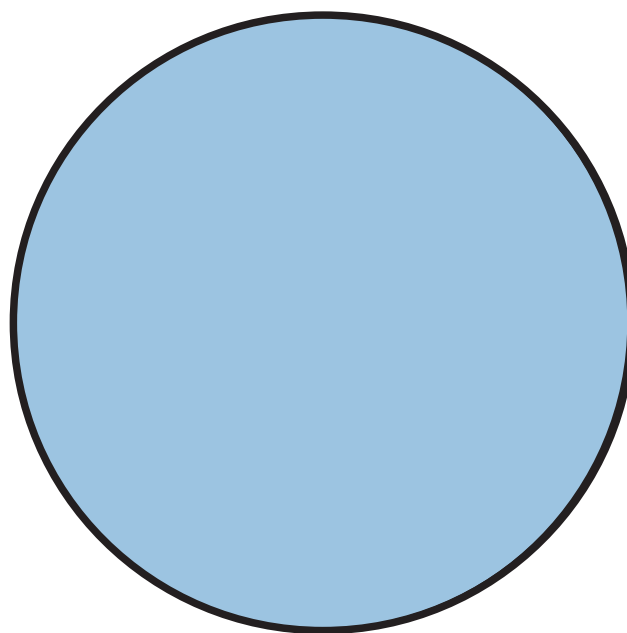
5 years 2012
1.60%

ACTUARIAL

▶ Funded Ratio	51.6%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.45% Total Increasing
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$85.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$9.2 M

	ACTIVE	RETIRED
▶ Number of Members	576	451
▶ Total Payroll/Benefit	\$25.7 M	\$11.3 M
▶ Average Salary/Benefit	\$44,600	\$25,000
▶ Average Age	49	74
▶ Average Service	11.6 years	NA

ASSET ALLOCATION (12/31/14)



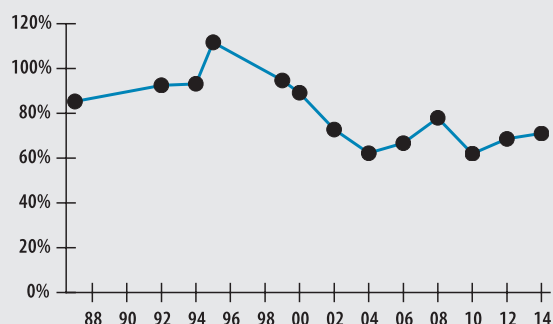
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

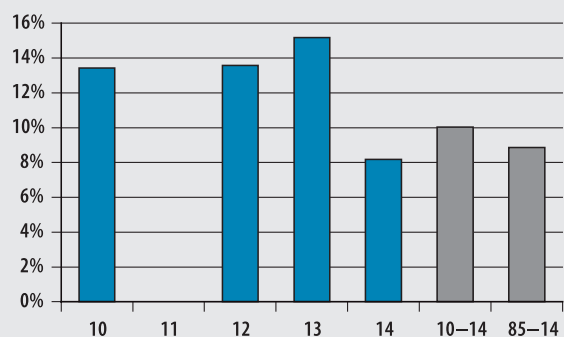
▶ Number of Disability Retirees	48
▶ Number Who Reported Earnings	12
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.18%
▶ 2014 Market Value	\$99.3 M
▶ 2010-2014 (Annualized)	10.23%
▶ 1985-2014 (Annualized)	8.76%

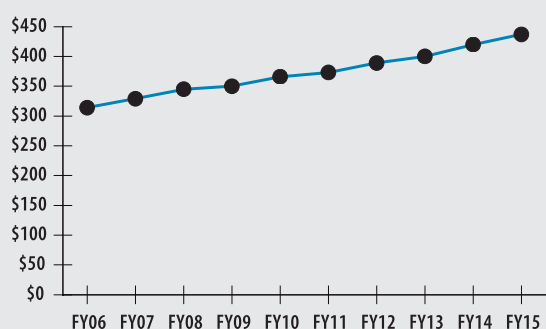
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.87%

29 years 2013
8.89%

28 years 2012
8.67%

10 years 2014
7.12%

10 years 2013
7.70%

10 years 2012
8.63%

5 years 2014
10.04%

5 years 2013
11.87%

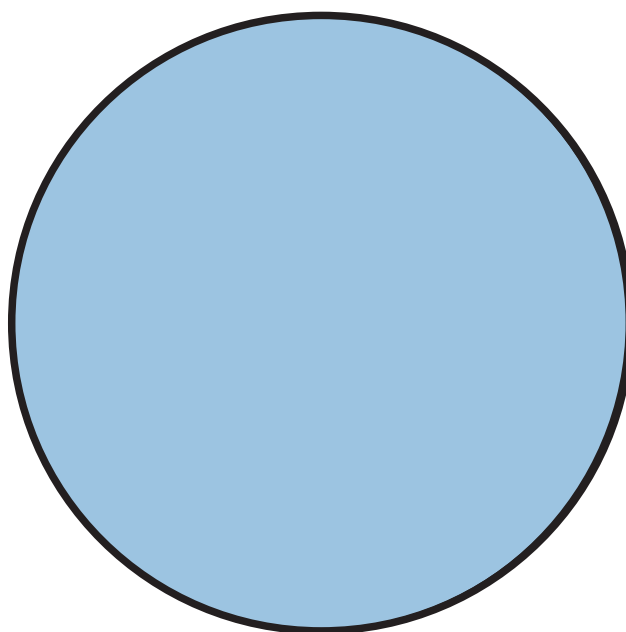
5 years 2012
1.77%

ACTUARIAL

▶ Funded Ratio	71.0%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$3.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$437,000

	ACTIVE	RETIRED
▶ Number of Members	47	52
▶ Total Payroll/Benefit	\$2.1 M	\$864,000
▶ Average Salary/Benefit	\$45,400	\$16,600
▶ Average Age	51	79
▶ Average Service	10.9 years	NA

ASSET ALLOCATION (12/31/14)



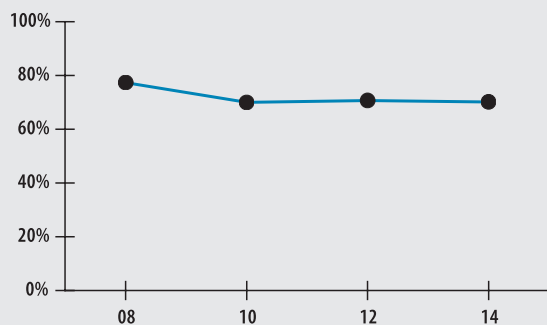
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

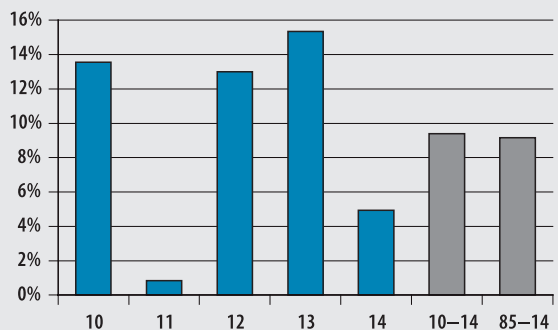
▶ Number of Disability Retirees	0
▶ Number Who Reported Earnings	0
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.18%
▶ 2014 Market Value	\$9.9 M
▶ 2010-2014 (Annualized)	10.04%
▶ 1985-2014 (Annualized)	8.87%

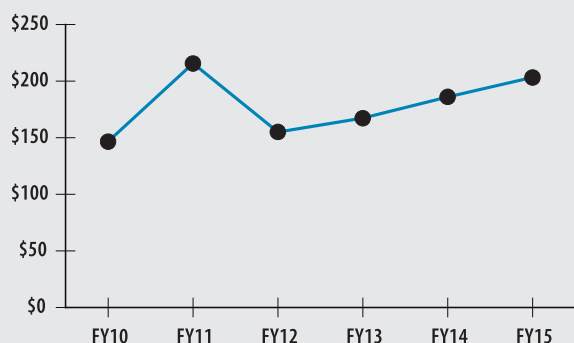
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

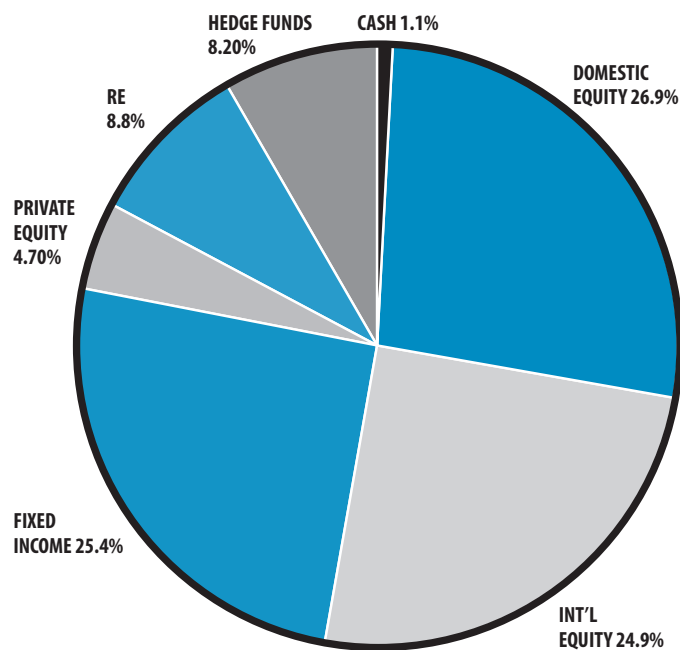
30 years 2014 9.17%	29 years 2013 9.32%	28 years 2012 9.11%
10 years 2014 6.95%	10 years 2013 7.65%	10 years 2012 8.36%
5 years 2014 9.39%	5 years 2013 12.30%	5 years 2012 3.25%

ACTUARIAL

▶ Funded Ratio	70.2%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	7.75% Total Increasing
▶ Year Fully Funded	2025
▶ Unfunded Liability	\$1.7 B
▶ Total Pension Appropriation (Fiscal 2015)	\$203.1 M

	ACTIVE	RETIRED
▶ Number of Members	14,235	9,925
▶ Total Payroll/Benefit	\$869.0 M	\$299.1 M
▶ Average Salary/Benefit	\$61,000	\$30,100
▶ Average Age	46	74
▶ Average Service	14.7 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	1573
▶ Number Who Reported Earnings	302
▶ Number of Excess Earners	8
▶ Total Amount of Refund Due	\$139,548.11

▶ 2014 Return	4.93%
▶ 2014 Market Value	\$4.2 B
▶ 2010-2014 (Annualized)	9.39%
▶ 1985-2014 (Annualized)	9.17%

*See **Notes** on Boston (Teachers) board profile page.

Boston Teachers

City Hall
Room 816
Boston, MA 02201
Phone 617-635-4305
Fax 617-635-4318

Board Members

Daniel J. Greene, Esq. (Chairperson),
Sally D. Glora, Thomas V. J. Jackson,
Michael W. McLaughlin, Michael D. O'Reilly

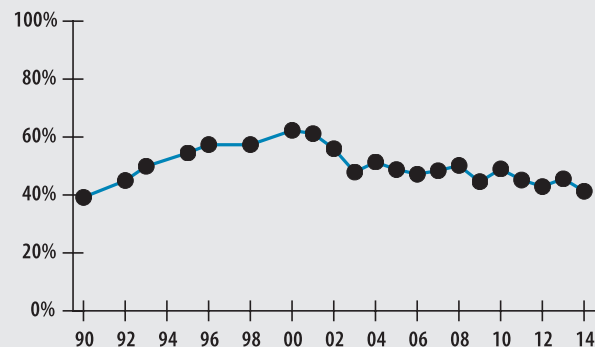
Board Administrator

Timothy J. Smyth

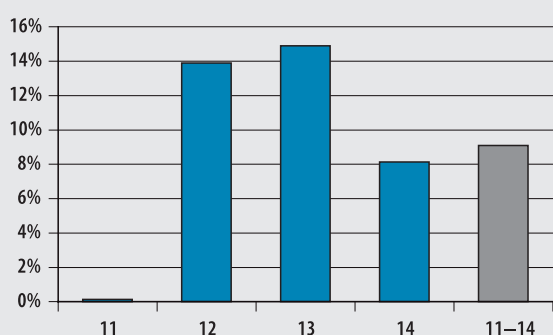
Board Meeting

Third Wednesday of each month
at 10:00 am

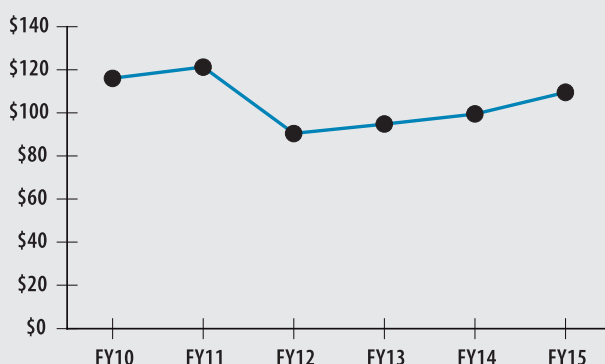
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2011-2014, 4 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



NOTES — BOSTON (CITY) & BOSTON TEACHERS

In this report we have separated the results for Boston Teachers and non-teachers (City). The liability for Boston Teachers has always been the responsibility of the Commonwealth. In 2010, legislation was enacted that allocated assets to Boston Teachers and separate accounts have been maintained since that date. The actuarial information for the City now solely reflects liability that is the responsibility of the City. The Funded Ratio and History of Appropriations charts for the City reflect information available since this allocation. Please note the following when reviewing the charts on these pages:

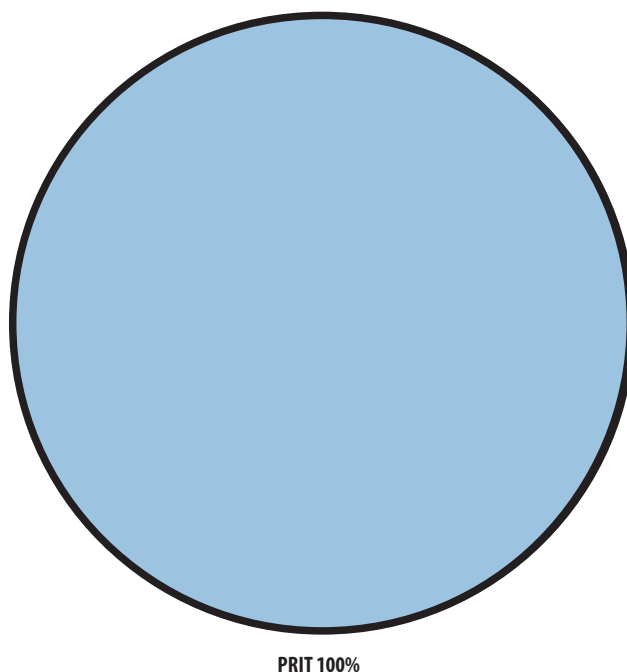
- ▶ Boston Teachers' assets prior to 2010 were estimated as approximately 30% of Boston (System) total assets.
- ▶ The information with respect to Disability Retirees on the City Board Profile page reflects the entire system, including Boston Teachers.
- ▶ The information with respect to Investment Return History for the City reflects actual returns for Boston (City) for 2011-2013 and total returns for the Boston System prior to 2011.

ACTUARIAL

▶ Funded Ratio	41.3%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$2.0 B
▶ Total Pension Appropriation (Fiscal 2015)	\$109.5 M

	ACTIVE	RETIRED
▶ Number of Members	6,043	4,416
▶ Total Payroll/Benefit	\$510.1 M	\$211.3 M
▶ Average Salary/Benefit	\$84,400	\$47,800
▶ Average Age	43	43
▶ Average Service	13.0 years	NA

ASSET ALLOCATION (12/31/14)



▶ 2014 Return	8.14%
▶ 2014 Market Value	\$1.5 B
▶ 2011-2014 (Annualized)	9.10%

Board Members

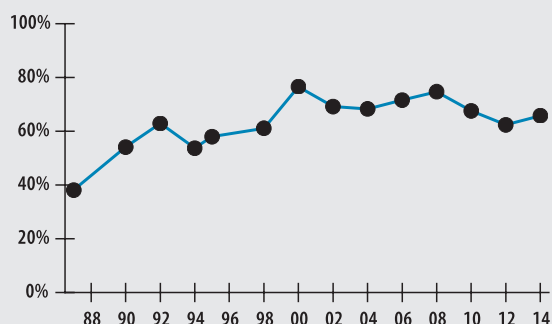
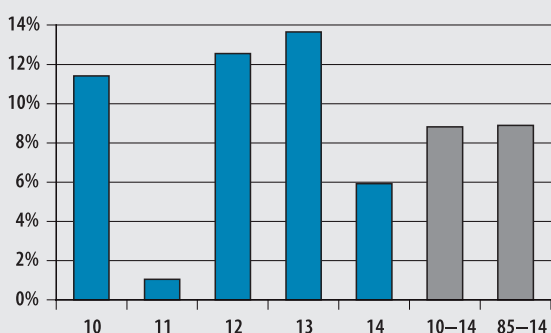
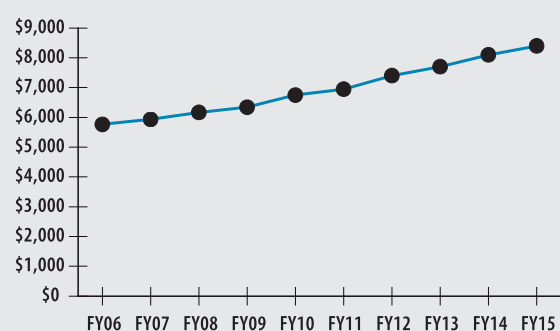
Gerald J. Kenny, Jr. (Chairperson),
Eric Cocca, Phyllis DiPalma,
Peter J. Morin, Edward J. Spellman

Board Administrator

Jeanne Martineau

Board Meeting

Fourth Wednesday of each month

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

8.89%

29 years 2013

9.00%

28 years 2012

8.83%

10 years 2014

6.57%

10 years 2013

7.25%

10 years 2012

8.24%

5 years 2014

8.81%

5 years 2013

11.68%

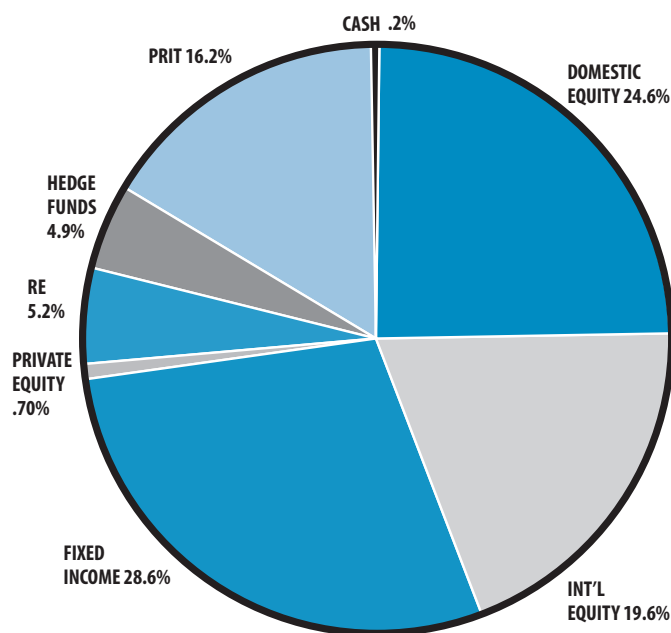
5 years 2012

3.75%

ACTUARIAL

▶ Funded Ratio	65.8%
▶ Date of Last Valuation	01/14
▶ Actuary	KMS Actuaries
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2033
▶ Unfunded Liability	\$82.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$8.4 M

	ACTIVE	RETIRED
▶ Number of Members	735	502
▶ Total Payroll/Benefit	\$38.4 M	\$14.2 M
▶ Average Salary/Benefit	\$52,300	\$28,300
▶ Average Age	49	74
▶ Average Service	12.8 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	59
▶ Number Who Reported Earnings	15
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	5.92%
▶ 2014 Market Value	\$172.8 M
▶ 2010-2014 (Annualized)	8.81%
▶ 1985-2014 (Annualized)	8.89%

Bristol County

County Crossing
645 County Street
Taunton, MA 02780
Phone 508-824-4029
Fax 508-880-8749

Board Members

Christopher T. Saunders, Esq. (Chairperson),
Christine N. DeFontes, William M. Downey,
Paul T. Kitchen, Stephen J. Rivard

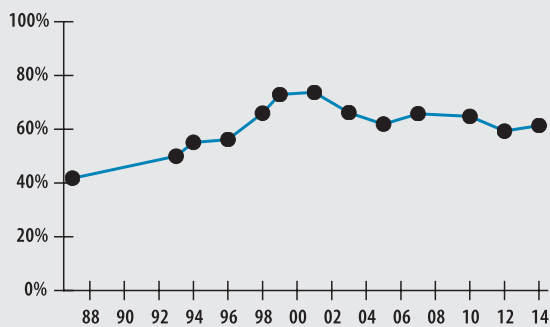
Board Administrator

Roxanne Donovan

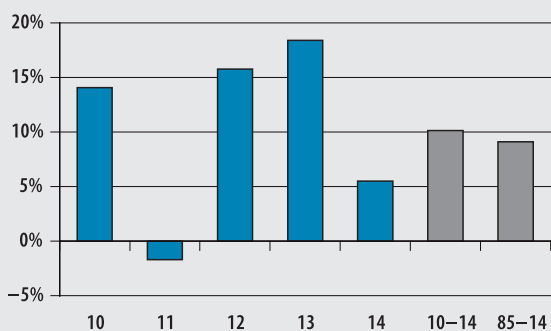
Board Meeting

Last Thursday of each month

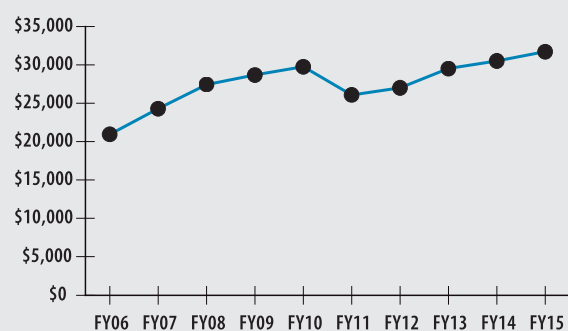
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.12%

29 years 2013
9.25%

28 years 2012
8.94%

10 years 2014
6.82%

10 years 2013
7.27%

10 years 2012
7.69%

5 years 2014
10.16%

5 years 2013
13.48%

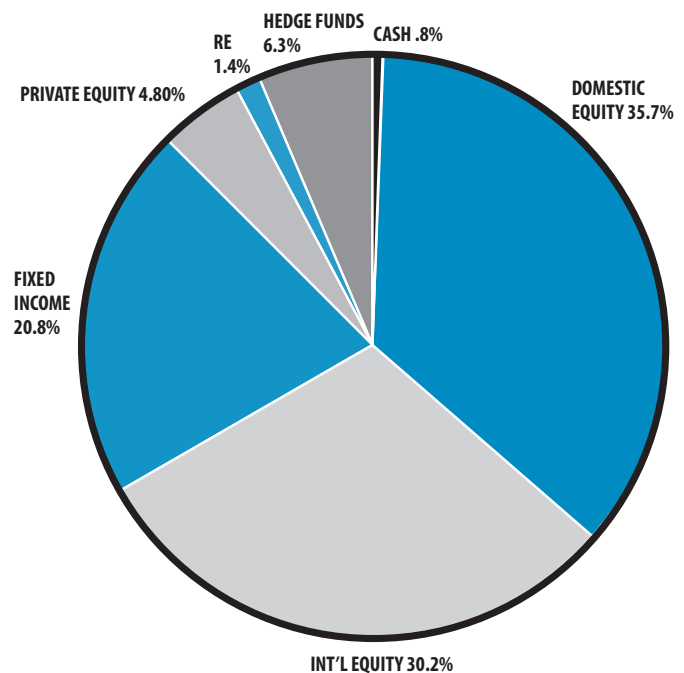
5 years 2012
3.23%

ACTUARIAL

▶ Funded Ratio	61.4%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.5% Increasing Phase-in
▶ Year Fully Funded	2029
▶ Unfunded Liability	\$324.2 M
▶ Total Pension Appropriation (Fiscal 2015)	\$31.7 M

	ACTIVE	RETIRED
▶ Number of Members	3,119	2,318
▶ Total Payroll/Benefit	\$141.9 M	\$47.9 M
▶ Average Salary/Benefit	\$45,500	\$20,700
▶ Average Age	NA	72
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)

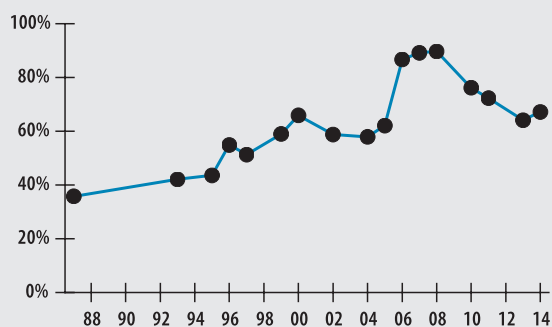


EARNED INCOME OF DISABILITY RETIREES (2013)

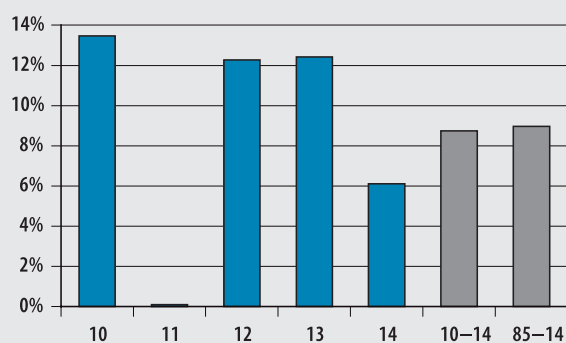
▶ Number of Disability Retirees	233
▶ Number Who Reported Earnings	70
▶ Number of Excess Earners	3
▶ Total Amount of Refund Due	\$44,028.06

▶ 2014 Return	5.50%
▶ 2014 Market Value	\$582.1 M
▶ 2010-2014 (Annualized)	10.16%
▶ 1985-2014 (Annualized)	9.12%

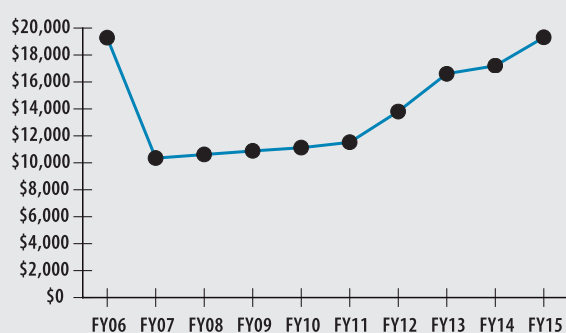
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY*

30 years 2014 8.96%	29 years 2013 9.06%	28 years 2012 8.94%
10 years 2014 5.63%	10 years 2013 6.39%	10 years 2012 7.54%
5 years 2014 8.75%	5 years 2013 12.12%	5 years 2012 2.20%

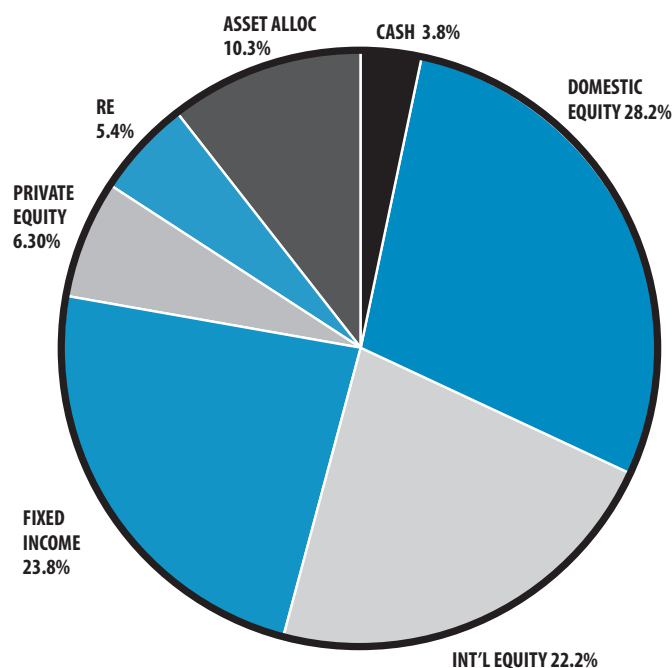
*PERAC's Investment Report did not include investment performance for Brockton due to that board's failure to timely file its accounting information. The investment performance noted herein is based on an initial review of data subsequently submitted. Consequently, in the event further review warrants PERAC may revise this number accordingly.

ACTUARIAL

▶ Funded Ratio	67.2%
▶ Date of Last Valuation	01/14
▶ Actuary	Buck Consultants
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.5% Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$173.8 M
▶ Total Pension Appropriation (Fiscal 2015)	\$19.3 M

	ACTIVE	RETIRED
▶ Number of Members	1,730	1,261
▶ Total Payroll/Benefit	\$73.8 M	\$36.6 M
▶ Average Salary/Benefit	\$42,600	\$29,000
▶ Average Age	47	NA
▶ Average Service	11.6 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	147
▶ Number Who Reported Earnings	37
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$935.67

▶ 2014 Return	6.12%
▶ 2014 Market Value	\$371.6 M
▶ 2010-2014 (Annualized)	8.75%
▶ 1985-2014 (Annualized)	8.96%

Board Members

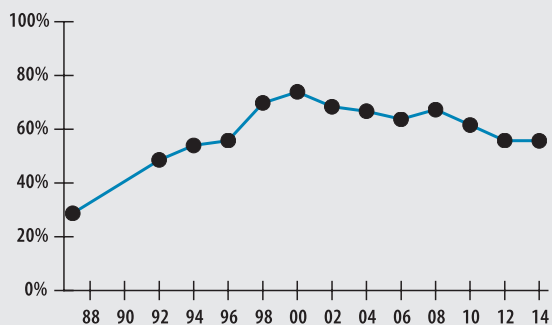
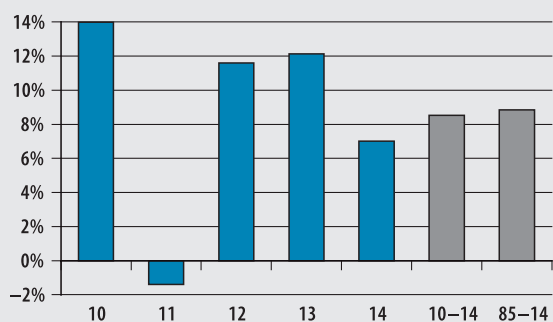
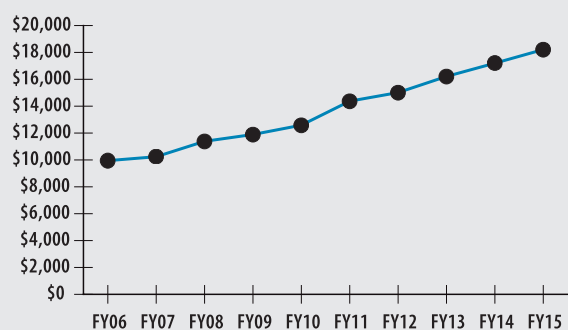
James J. Riley (Chairperson),
Gary Altman, Stephan E. Cirillo,
Michael F. DiPietro, Robert J. Ward

Board Administrator

Frank J. Zecha

Board Meeting

Varies

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

8.84%

29 years 2013

8.90%

28 years 2012

8.79%

10 years 2014

5.78%

10 years 2013

6.18%

10 years 2012

6.95%

5 years 2014

8.52%

5 years 2013

11.57%

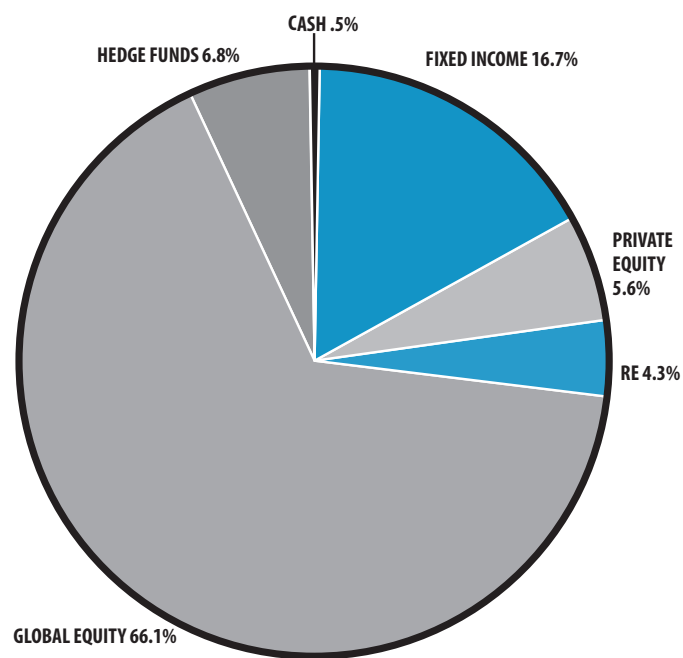
5 years 2012

2.11%

ACTUARIAL

▶ Funded Ratio	55.7%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.60%
▶ Funding Schedule	5.5% Total Increasing
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$192.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$18.2 M

	ACTIVE	RETIRED
▶ Number of Members	1,259	877
▶ Total Payroll/Benefit	\$64.8 M	\$25.7 M
▶ Average Salary/Benefit	\$51,500	\$29,300
▶ Average Age	43	NA
▶ Average Service	11.1 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	150
▶ Number Who Reported Earnings	34
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$9,216.64

▶ 2014 Return	7.01%
▶ 2014 Market Value	\$257.7 M
▶ 2010-2014 (Annualized)	8.52%
▶ 1985-2014 (Annualized)	8.84%

Board Members

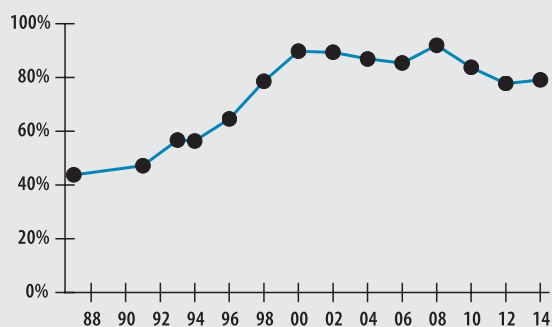
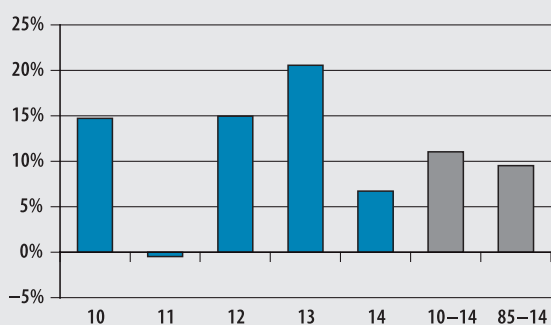
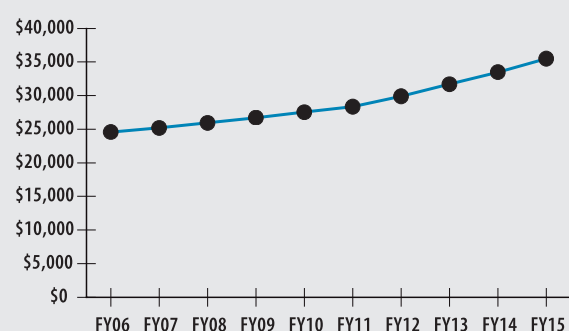
Francis E. Murphy III (Chairperson),
Nadia Chamblin-Foster, Michael P. Gardner,
James H. Monagle, John W. Shinkwin

Board Administrator

Ellen K. Philbin

Board Meeting

First Monday of every month

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY

30 years 2014
9.55%

29 years 2013
9.65%

28 years 2012
9.28%

10 years 2014
7.04%

10 years 2013
7.33%

10 years 2012
7.27%

5 years 2014
11.06%

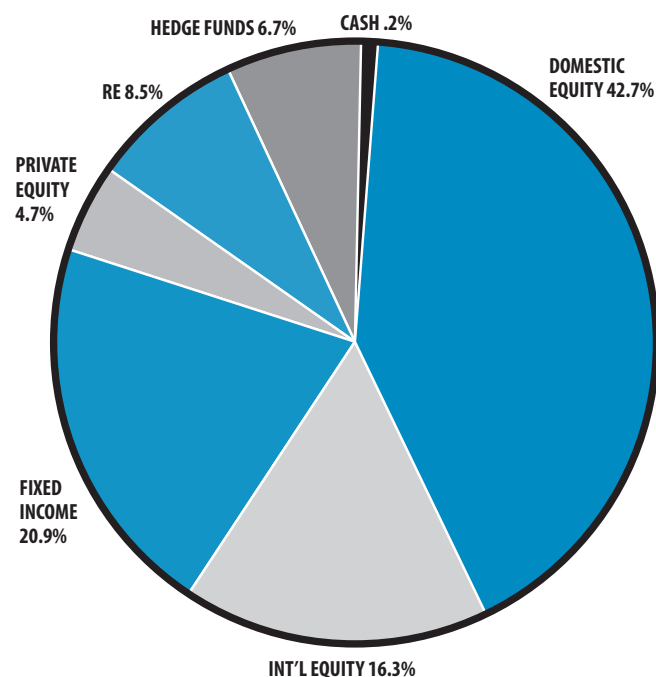
5 years 2013
13.78%

5 years 2012
2.46%

ACTUARIAL

▶ Funded Ratio	79.1%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	5.85% Total Increasing
▶ Year Fully Funded	2026
▶ Unfunded Liability	\$250.2 M
▶ Total Pension Appropriation (Fiscal 2015)	\$35.5 M

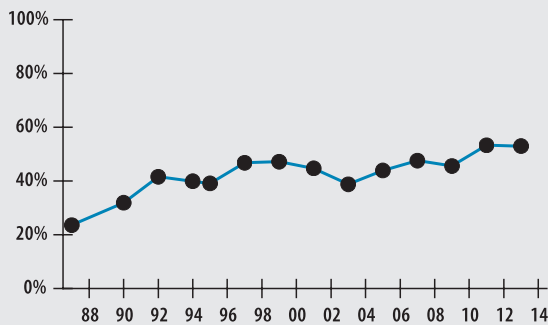
	ACTIVE	RETIRED
▶ Number of Members	3,145	1,966
▶ Total Payroll/Benefit	\$218.6 M	\$59.1 M
▶ Average Salary/Benefit	\$69,500	\$30,000
▶ Average Age	48	NA
▶ Average Service	14.3 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

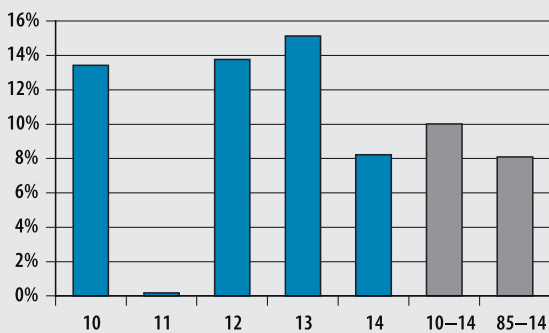
▶ Number of Disability Retirees	222
▶ Number Who Reported Earnings	46
▶ Number of Excess Earners	2
▶ Total Amount of Refund Due	\$10,102.18

▶ 2014 Return	6.73%
▶ 2014 Market Value	\$1.1 B
▶ 2010-2014 (Annualized)	11.06%
▶ 1985-2014 (Annualized)	9.55%

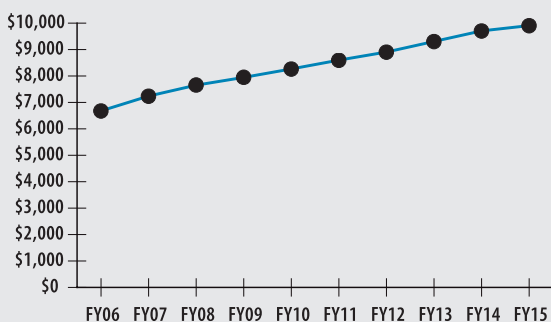
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

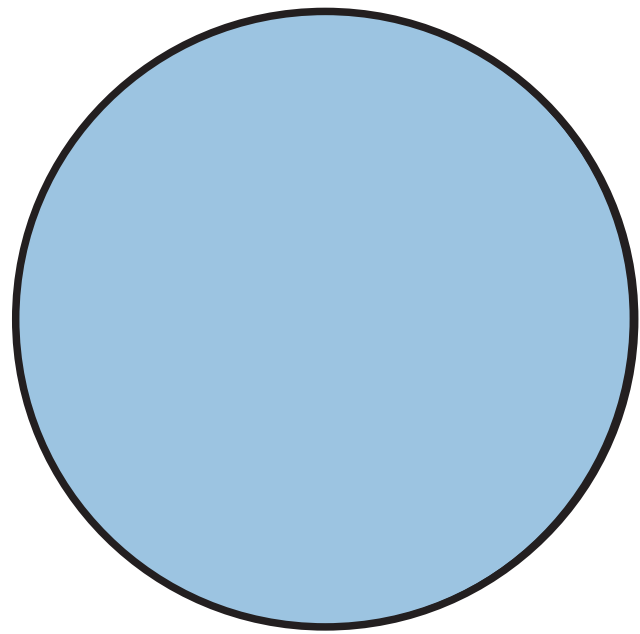
30 years 2014 8.10%	29 years 2013 8.10%	28 years 2012 7.85%
10 years 2014 6.90%	10 years 2013 7.32%	10 years 2012 7.86%
5 years 2014 10.01%	5 years 2013 11.89%	5 years 2012 1.52%

ACTUARIAL

▶ Funded Ratio	53.0%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.6% Total Increasing
▶ Year Fully Funded	2028
▶ Unfunded Liability	\$82.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$9.9 M

	ACTIVE	RETIRED
▶ Number of Members	670	372
▶ Total Payroll/Benefit	\$31.1 M	\$8.8 M
▶ Average Salary/Benefit	\$46,400	\$23,600
▶ Average Age	46	73
▶ Average Service	12.2 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	77
▶ Number Who Reported Earnings	20
▶ Number of Excess Earners	3
▶ Total Amount of Refund Due	\$18,485.62

▶ 2014 Return	8.23%
▶ 2014 Market Value	\$122.5 M
▶ 2010-2014 (Annualized)	10.01%
▶ 1985-2014 (Annualized)	8.10%

Chicopee

City Hall, Market Square
274 Front Street
Chicopee, MA 01013-2685
Phone 413-594-1542
Fax 413-594-1544

Board Members

Timothy O. O'Shea, (Chairperson),
Debra A. Boronski, Maxwell S. Mackechnie,
Sharyn A. Riley

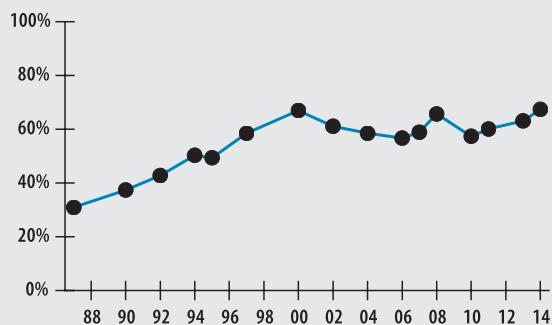
Board Administrator

Susana Baltazar

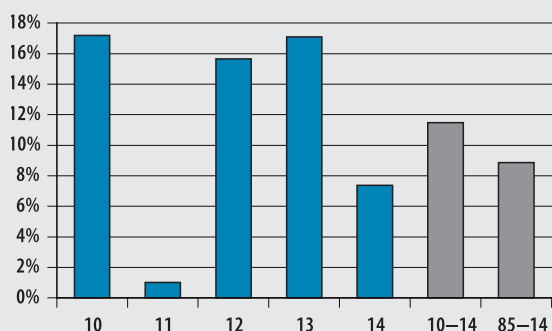
Board Meeting

Second Thursday of each month at 2:00 pm

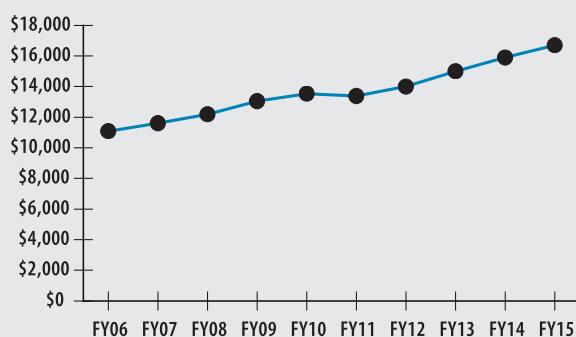
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.86%

29 years 2013

8.91%

28 years 2012

8.63%

10 years 2014

7.21%

10 years 2013

7.48%

10 years 2012

7.94%

5 years 2014

11.48%

5 years 2013

15.74%

5 years 2012

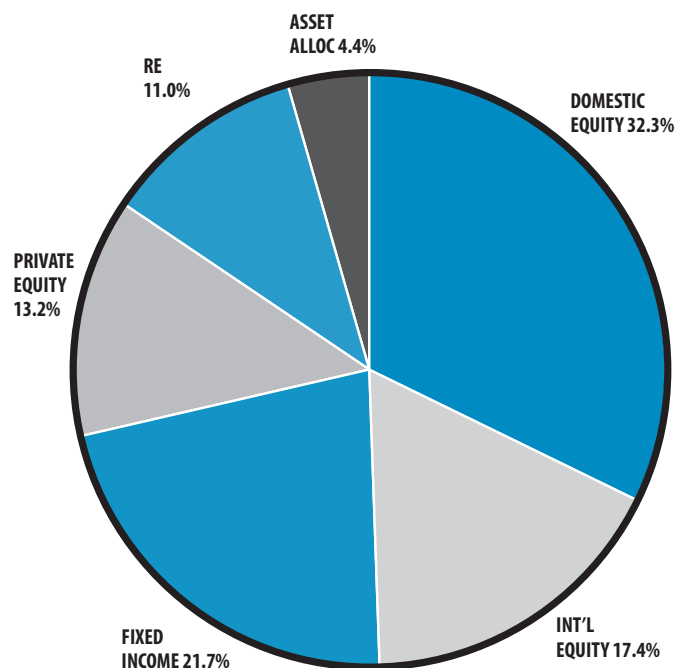
4.47%

ACTUARIAL

▶ Funded Ratio	67.4%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	2.5% Total Increasing
▶ Year Fully Funded	2023
▶ Unfunded Liability	\$104.3 M
▶ Total Pension Appropriation (Fiscal 2015)	\$16.7 M

	ACTIVE	RETIRED
▶ Number of Members	1,217	775
▶ Total Payroll/Benefit	\$51.2 M	\$16.5 M
▶ Average Salary/Benefit	\$42,000	\$21,200
▶ Average Age	47	73
▶ Average Service	13.7 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	83
▶ Number Who Reported Earnings	23
▶ Number of Excess Earners	2
▶ Total Amount of Refund Due	\$4,414.48

▶ 2014 Return	7.37%
▶ 2014 Market Value	\$251.0 M
▶ 2010-2014 (Annualized)	11.48%
▶ 1985-2014 (Annualized)	8.86%

Clinton

242 Church Street
Clinton, MA 01510
Phone 978-365-4118
Fax 978-612-0215

Board Members

John M. McNamara (Chairperson),
Joseph P. Casasanto, Paul B. Cherubini,
George Kittredge, Diane L. Magliozzi

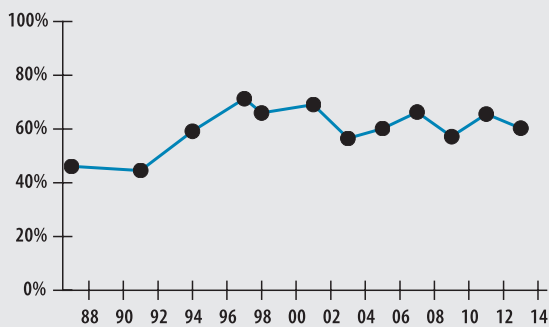
Board Administrator

Patricia Hazel

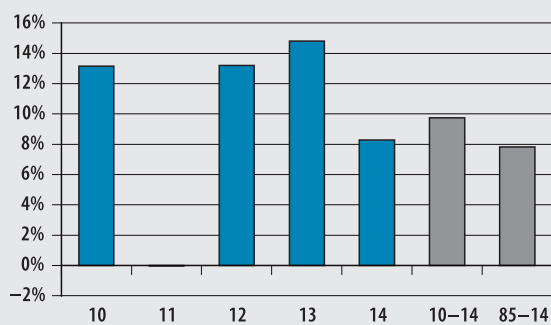
Board Meeting

Generally the last Tuesday of each
month at 4:00 pm

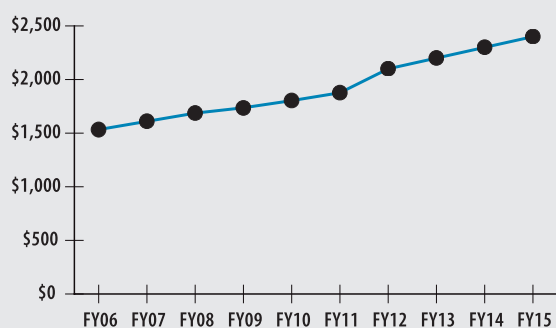
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

7.83%

29 years 2013

7.82%

28 years 2012

7.57%

10 years 2014

5.79%

10 years 2013

6.39%

10 years 2012

7.32%

5 years 2014

9.75%

5 years 2013

11.73%

5 years 2012

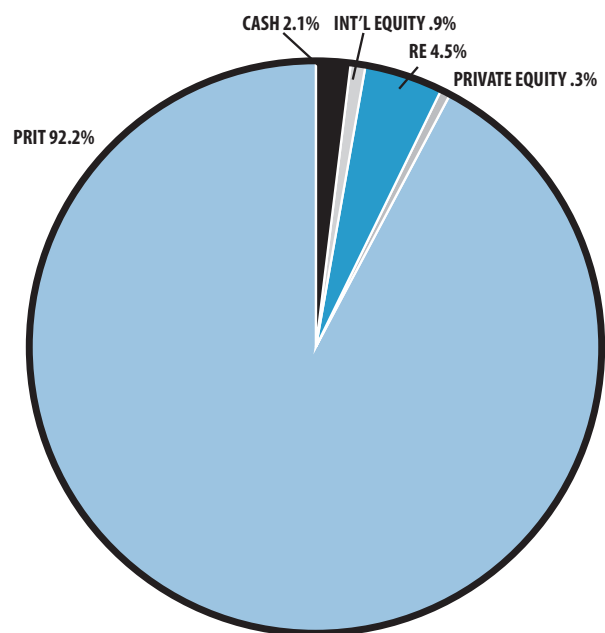
0.63%

ACTUARIAL

▶ Funded Ratio	60.3%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2034
▶ Unfunded Liability	\$20.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$2.4 M

	ACTIVE	RETIRED
▶ Number of Members	233	107
▶ Total Payroll/Benefit	\$9.2 M	\$2.4 M
▶ Average Salary/Benefit	\$39,400	\$22,200
▶ Average Age	49	73
▶ Average Service	12.6 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	11
▶ Number Who Reported Earnings	5
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.29%
▶ 2014 Market Value	\$39.5 M
▶ 2010-2014 (Annualized)	9.75%
▶ 1985-2014 (Annualized)	7.83%

Concord

P. O. Box 535
22 Monument Square
Concord, MA 01742-0535
Phone 978-318-3068
Fax 978-318-3093

Board Members

Peter J. Fulton (Chairperson),
Mary M. Barrett, Anthony T. Logalbo,
Arnold Roth, Brian J. Whitney

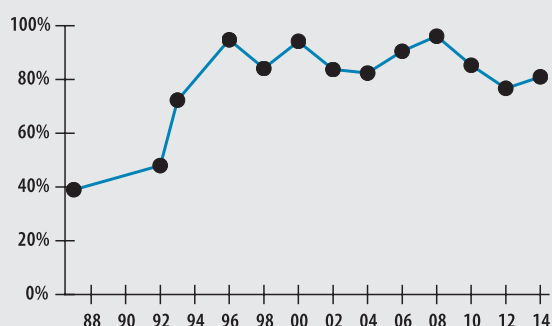
Board Administrator

Linda Boucher

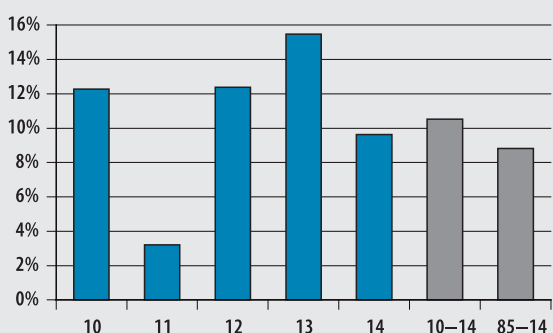
Board Meeting

Varies, usually the last Tuesday
of each month

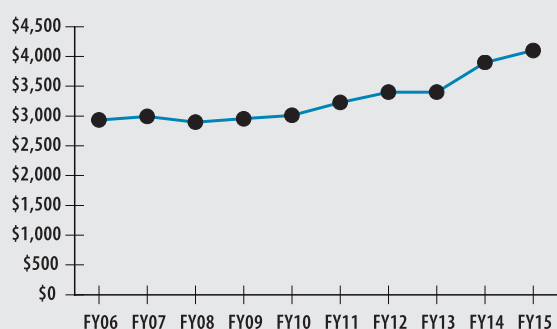
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.83%

29 years 2013

8.81%

28 years 2012

8.58%

10 years 2014

7.00%

10 years 2013

7.08%

10 years 2012

7.31%

5 years 2014

10.52%

5 years 2013

11.99%

5 years 2012

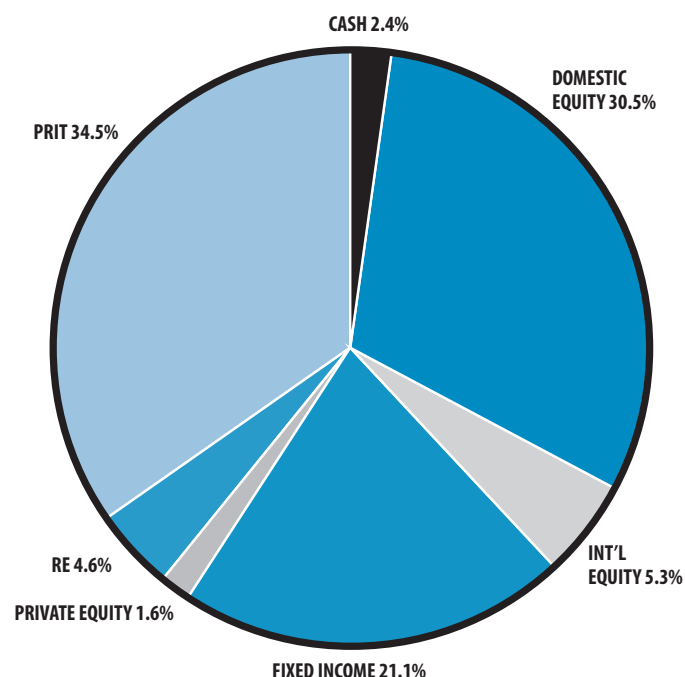
3.02%

ACTUARIAL

▶ Funded Ratio	81.0%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.50%
▶ Funding Schedule	2.0% Increasing
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$27.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$4.1 M

	ACTIVE	RETIRED
▶ Number of Members	502	270
▶ Total Payroll/Benefit	\$27.5 M	\$6.0 M
▶ Average Salary/Benefit	\$54,800	\$22,100
▶ Average Age	50	74
▶ Average Service	12.3 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	24
▶ Number Who Reported Earnings	6
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	9.63%
▶ 2014 Market Value	\$133.1 M
▶ 2010-2014 (Annualized)	10.52%
▶ 1985-2014 (Annualized)	8.83%

Danvers

Town Hall
1 Sylvan Street
Danvers, MA 01923
Phone 978-777-0001, Ext. 3044
Fax 978-762-0264

Board Members

Leonard A. Marshall (Chairperson),
Robert J. Cyr, Dana M. Hagan,
Wayne P. Marquis, Kevin M. Walsh

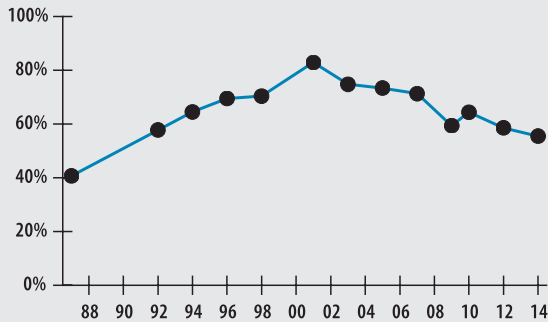
Board Administrator

Susan Little

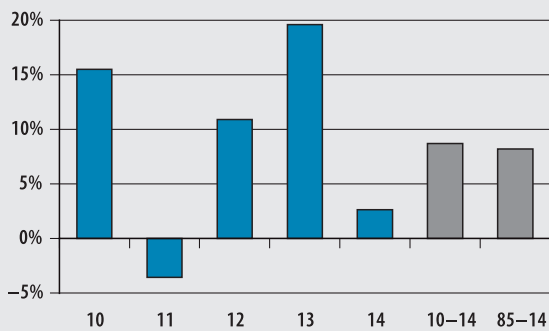
Board Meeting

Last Wednesday of each month at 3:00 pm

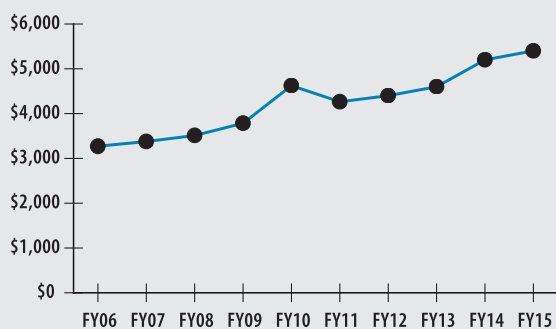
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



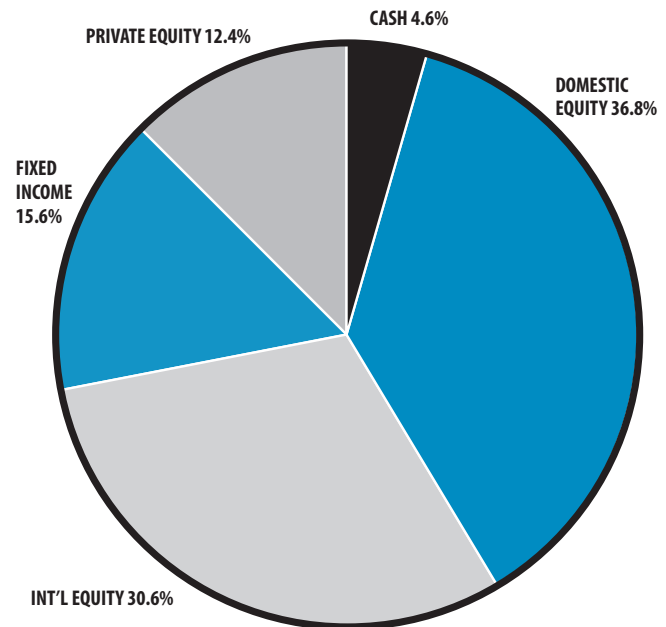
INVESTMENT RETURN HISTORY

30 years 2014 8.22%	29 years 2013 8.41%	28 years 2012 8.03%
10 years 2014 5.98%	10 years 2013 6.63%	10 years 2012 6.22%
5 years 2014 8.70%	5 years 2013 13.26%	5 years 2012 2.57%

ACTUARIAL

▶ Funded Ratio		55.5%
▶ Date of Last Valuation		01/14
▶ Actuary		Stone Consulting
▶ Assumed Rate of Return		8.00%
▶ Funding Schedule		4.0% Increasing Phase-in
▶ Year Fully Funded		2036
▶ Unfunded Liability		\$72.2 M
▶ Total Pension Appropriation (Fiscal 2015)		\$5.4 M
	ACTIVE	RETIRED
▶ Number of Members	469	397
▶ Total Payroll/Benefit	\$24.5 M	\$9.7 M
▶ Average Salary/Benefit	\$52,200	\$24,300
▶ Average Age	47	74
▶ Average Service	12.4 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	25
▶ Number Who Reported Earnings	9
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	2.65%
▶ 2014 Market Value	\$99.7 M
▶ 2010-2014 (Annualized)	8.70%
▶ 1985-2014 (Annualized)	8.22%

Dedham

202 Bussey Street
Suite 101
Dedham, MA 02026
Phone 781-326-7693
Fax 781-329-4123

Board Members

Thomas R. Rorrie (Chairperson),
John W. Fontaine, Jr.,
Stephen M. MacDougall, John Maloney,
Susan Shaw

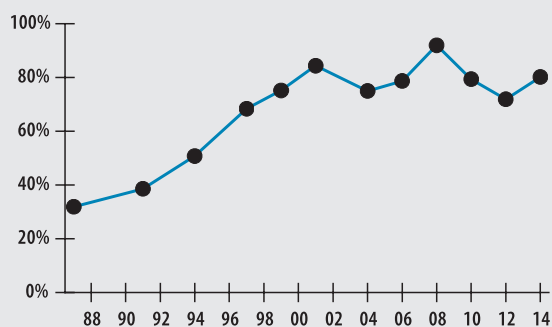
Board Administrator

Lynn M. Carley

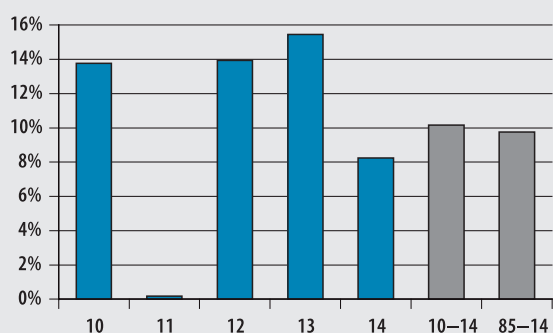
Board Meeting

Third Wednesday of each month

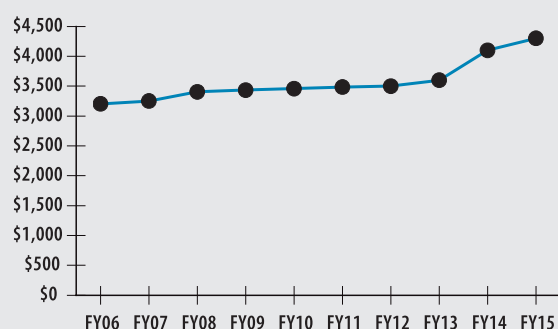
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.76%

29 years 2013

9.82%

28 years 2012

9.62%

10 years 2014

7.14%

10 years 2013

7.74%

10 years 2012

8.68%

5 years 2014

10.17%

5 years 2013

12.06%

5 years 2012

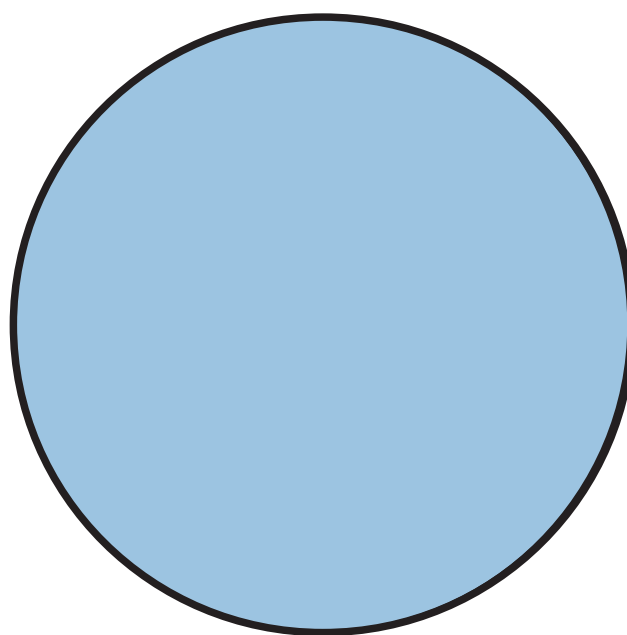
1.55%

ACTUARIAL

▶ Funded Ratio	80.2%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2024
▶ Unfunded Liability	\$24.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$4.3 M

	ACTIVE	RETIRED
▶ Number of Members	424	320
▶ Total Payroll/Benefit	\$20.5 M	\$8.0 M
▶ Average Salary/Benefit	\$48,400	\$25,000
▶ Average Age	NA	75
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



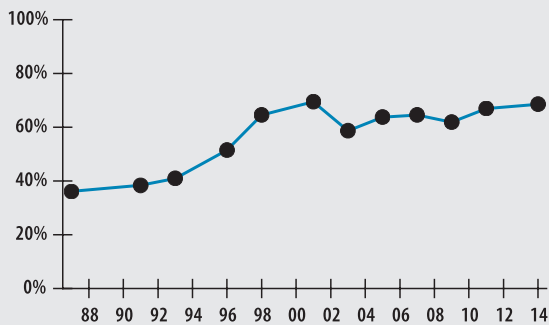
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

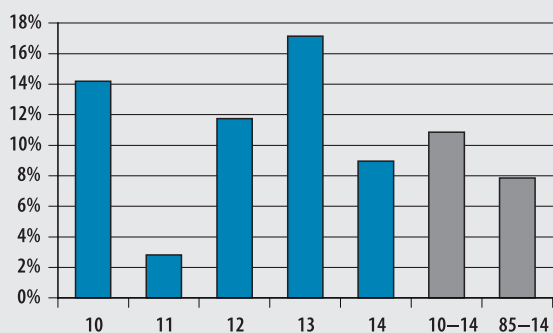
▶ Number of Disability Retirees	47
▶ Number Who Reported Earnings	8
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.24%
▶ 2014 Market Value	\$110.7 M
▶ 2010-2014 (Annualized)	10.17%
▶ 1985-2014 (Annualized)	9.76%

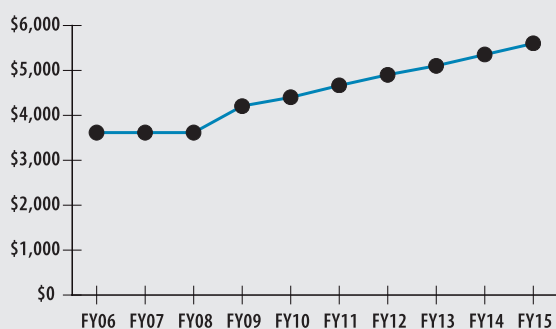
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

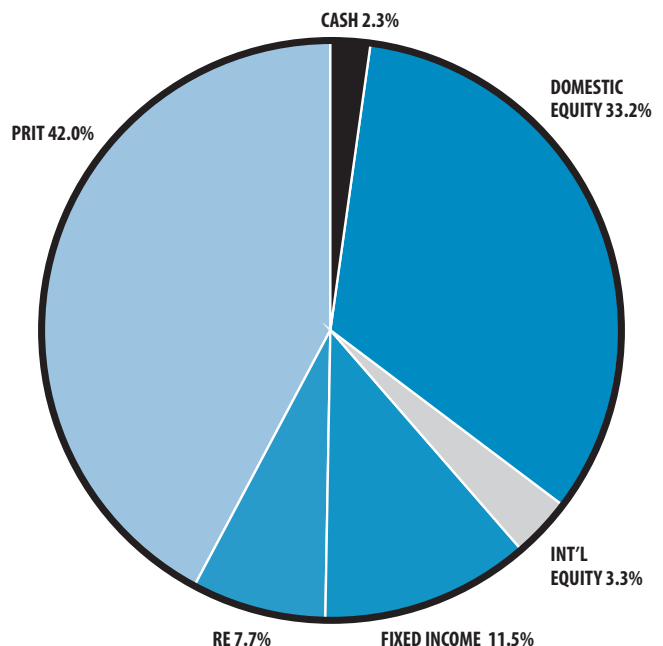
30 years 2014 7.87%	29 years 2013 7.84%	28 years 2012 7.52%
10 years 2014 7.32%	10 years 2013 7.41%	10 years 2012 7.36%
5 years 2014 10.87%	5 years 2013 12.23%	5 years 2012 2.97%

ACTUARIAL

▶ Funded Ratio	68.6%
▶ Date of Last Valuation	01/14
▶ Actuary	KMS Actuaries
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.5% Increasing
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$44.4 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.6 M

	ACTIVE	RETIRED
▶ Number of Members	629	261
▶ Total Payroll/Benefit	\$34.9 M	\$4.7 M
▶ Average Salary/Benefit	\$55,400	\$18,000
▶ Average Age	49	71
▶ Average Service	11.1 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	22
▶ Number Who Reported Earnings	10
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$1,522.38

▶ 2014 Return	8.97%
▶ 2014 Market Value	\$113.3 M
▶ 2010-2014 (Annualized)	10.87%
▶ 1985-2014 (Annualized)	7.87%

Board Members

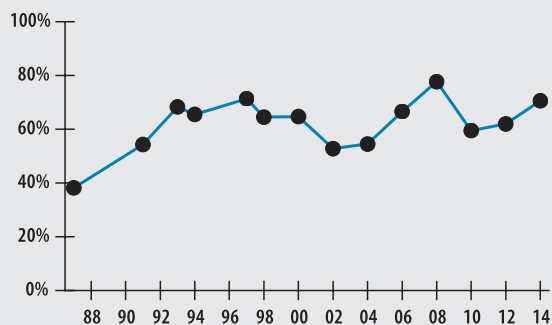
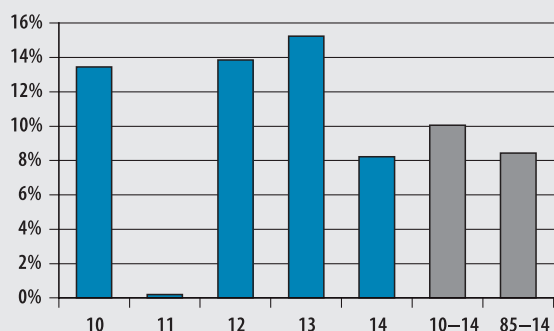
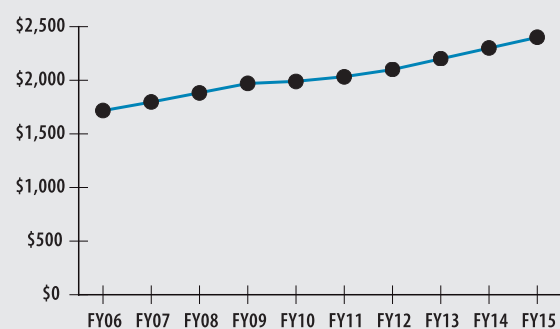
James P. Dunham (Chairperson),
Valerie J. Bernier, Donald C. Emerson,
William F. Steplar, Melissa Zawadzki

Board Administrator

Tina Schneider

Board Meeting

Fourth Tuesday of each month

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

8.43%

29 years 2013

8.44%

28 years 2012

8.21%

10 years 2014

7.06%

10 years 2013

7.68%

10 years 2012

8.66%

5 years 2014

10.06%

5 years 2013

11.89%

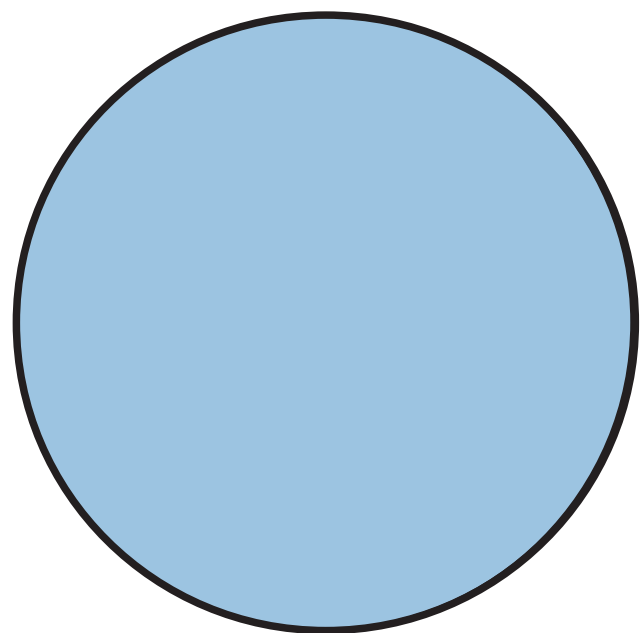
5 years 2012

1.47%

ACTUARIAL

▶ Funded Ratio	70.6%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	5.0% Total Increasing
▶ Year Fully Funded	2027
▶ Unfunded Liability	\$16.8 M
▶ Total Pension Appropriation (Fiscal 2015)	\$2.4 M

	ACTIVE	RETIRED
▶ Number of Members	223	151
▶ Total Payroll/Benefit	\$9.3 M	\$3.0 M
▶ Average Salary/Benefit	\$41,900	\$19,700
▶ Average Age	48	71
▶ Average Service	12.7 years	NA

ASSET ALLOCATION (12/31/14)


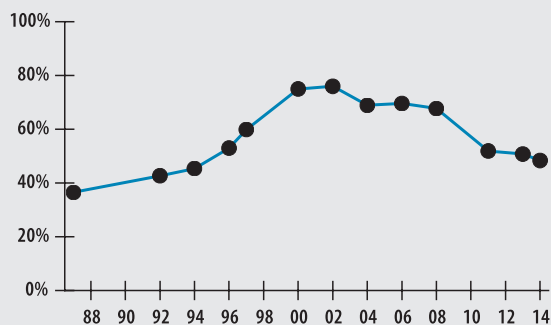
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

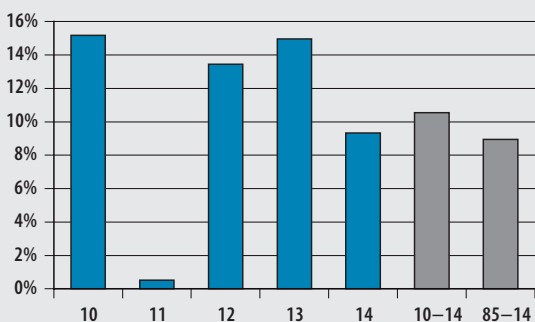
▶ Number of Disability Retirees	18
▶ Number Who Reported Earnings	3
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.23%
▶ 2014 Market Value	\$43.3 M
▶ 2010-2014 (Annualized)	10.06%
▶ 1985-2014 (Annualized)	8.43%

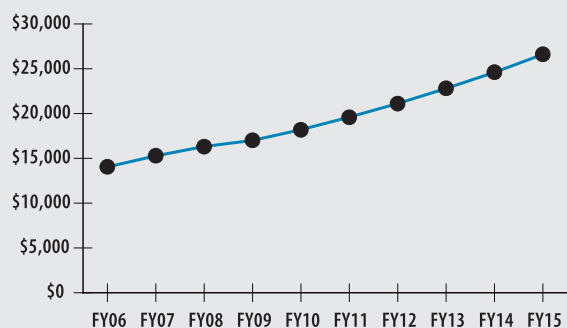
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

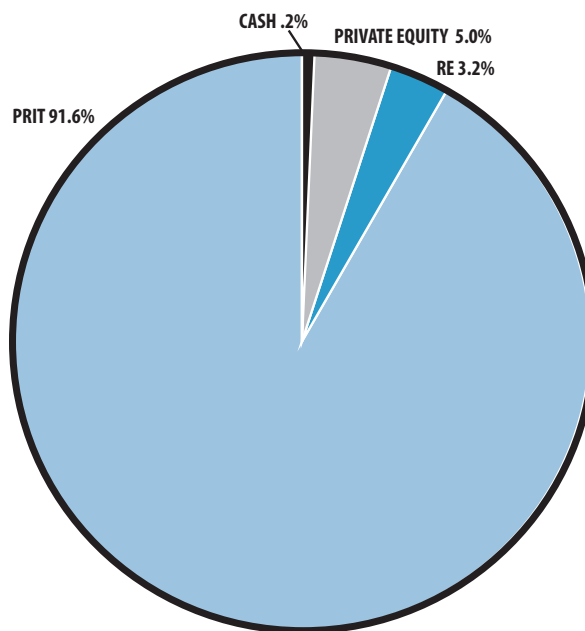
30 years 2014 8.94%	29 years 2013 8.93%	28 years 2012 8.72%
10 years 2014 6.24%	10 years 2013 6.26%	10 years 2012 6.64%
5 years 2014 10.55%	5 years 2013 13.04%	5 years 2012 1.45%

ACTUARIAL

▶ Funded Ratio	48.4%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2035
▶ Unfunded Liability	\$348.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$26.6 M

	ACTIVE	RETIRED
▶ Number of Members	2,714	1,725
▶ Total Payroll/Benefit	\$119.7 M	\$35.8 M
▶ Average Salary/Benefit	\$44,100	\$20,800
▶ Average Age	49	73
▶ Average Service	11.2 years	NA

ASSET ALLOCATION (12/31/14)

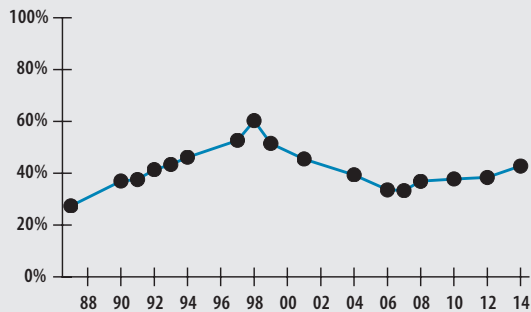


EARNED INCOME OF DISABILITY RETIREES (2013)

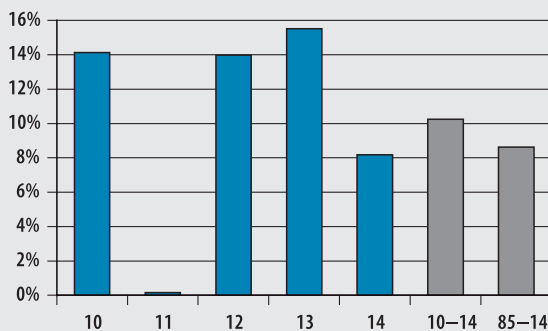
▶ Number of Disability Retirees	116
▶ Number Who Reported Earnings	41
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$27,792.84

▶ 2014 Return	9.33%
▶ 2014 Market Value	\$370.6 M
▶ 2010-2014 (Annualized)	10.55%
▶ 1985-2014 (Annualized)	8.94%

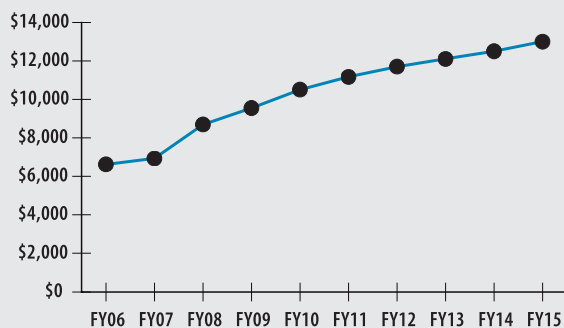
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

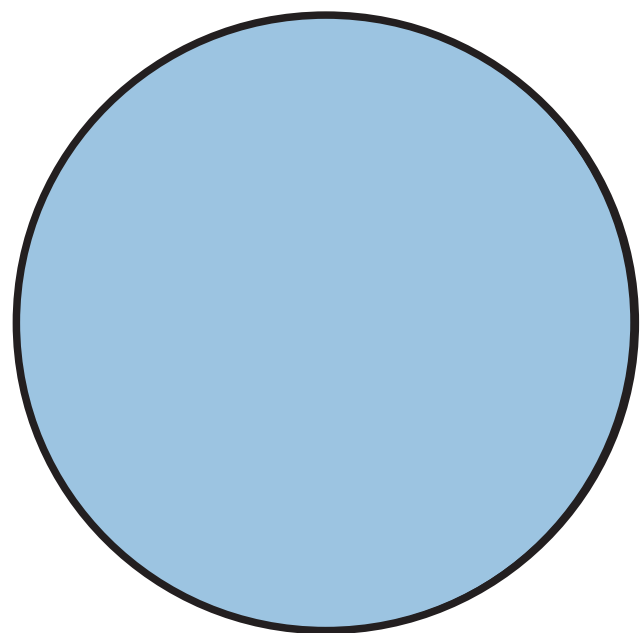
30 years 2014 8.62%	29 years 2013 8.63%	28 years 2012 8.40%
10 years 2014 6.86%	10 years 2013 6.96%	10 years 2012 7.46%
5 years 2014 10.24%	5 years 2013 12.18%	5 years 2012 1.57%

ACTUARIAL

▶ Funded Ratio	42.8%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.5% Total Increasing
▶ Year Fully Funded	2029
▶ Unfunded Liability	\$118.8 M
▶ Total Pension Appropriation (Fiscal 2015)	\$13.0 M

	ACTIVE	RETIRED
▶ Number of Members	730	541
▶ Total Payroll/Benefit	\$36.2 M	\$12.0 M
▶ Average Salary/Benefit	\$49,500	\$22,200
▶ Average Age	47	77
▶ Average Service	11.0 years	NA

ASSET ALLOCATION (12/31/14)



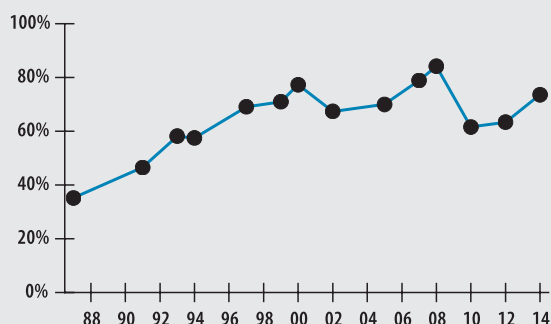
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

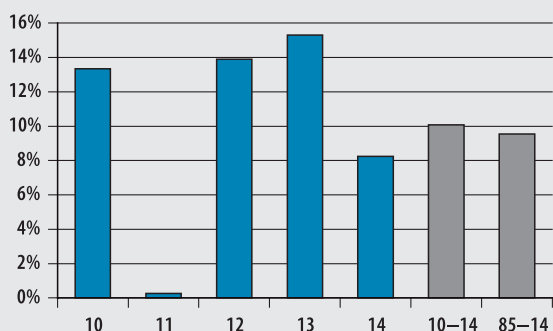
▶ Number of Disability Retirees	88
▶ Number Who Reported Earnings	18
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.17%
▶ 2014 Market Value	\$105.7 M
▶ 2010-2014 (Annualized)	10.24%
▶ 1985-2014 (Annualized)	8.62%

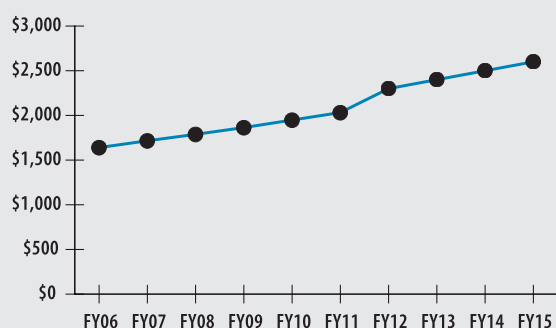
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

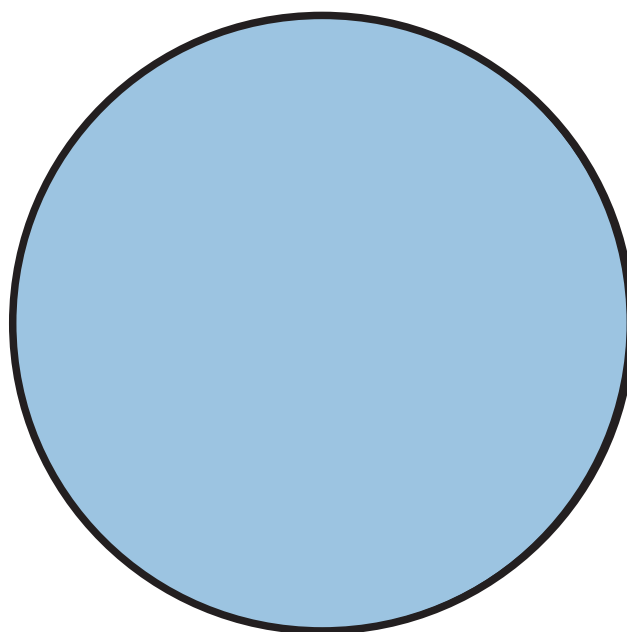
30 years 2014 9.54%	29 years 2013 9.58%	28 years 2012 9.38%
10 years 2014 7.05%	10 years 2013 7.64%	10 years 2012 8.57%
5 years 2014 10.07%	5 years 2013 11.93%	5 years 2012 1.47%

ACTUARIAL

▶ Funded Ratio	73.6%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	5.0% Total Increasing
▶ Year Fully Funded	2025
▶ Unfunded Liability	\$17.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$2.6 M

	ACTIVE	RETIRED
▶ Number of Members	261	185
▶ Total Payroll/Benefit	\$10.6 M	\$3.5 M
▶ Average Salary/Benefit	\$40,500	\$19,000
▶ Average Age	49	72
▶ Average Service	12.8 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	21
▶ Number Who Reported Earnings	11
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.25%
▶ 2014 Market Value	\$50.7 M
▶ 2010-2014 (Annualized)	10.07%
▶ 1985-2014 (Annualized)	9.54%

Fall River

30 Third Street
Suite 301
Fall River, MA 02720
Phone 508-646-9120
Fax 508-646-9123

Board Members

Arthur Viana (Chairperson),
Robert Camara, Krishan Gupta,
David Machado, Mark Nassiff, Jr.

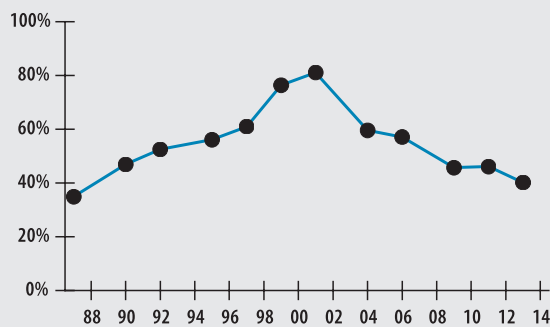
Board Administrator

Christine Tetreault

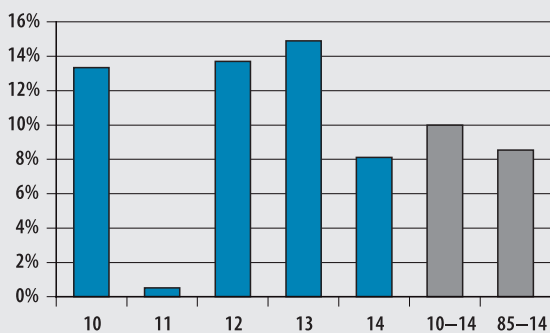
Board Meeting

Varies

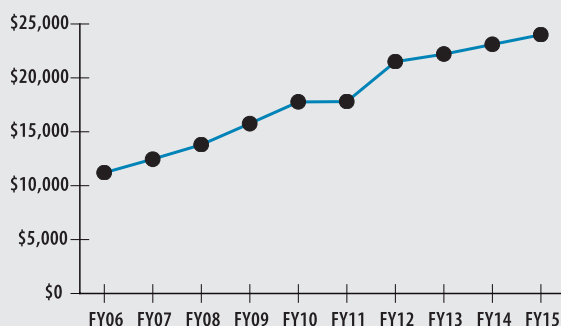
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.54%

29 years 2013

8.56%

28 years 2012

8.34%

10 years 2014

5.84%

10 years 2013

5.84%

10 years 2012

6.13%

5 years 2014

9.99%

5 years 2013

11.67%

5 years 2012

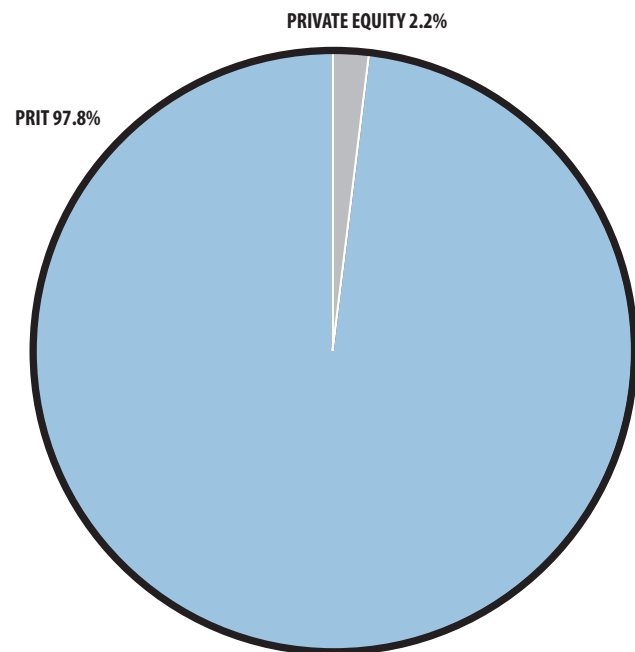
1.83%

ACTUARIAL

▶ Funded Ratio	40.2%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	6.0% Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$312.3 M
▶ Total Pension Appropriation (Fiscal 2015)	\$24.0 M

	ACTIVE	RETIRED
▶ Number of Members	1,627	1,531
▶ Total Payroll/Benefit	\$72.0 M	\$32.6 M
▶ Average Salary/Benefit	\$44,200	\$21,300
▶ Average Age	46	73
▶ Average Service	13.5 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	212
▶ Number Who Reported Earnings	55
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$5,578.88

▶ 2014 Return	8.11%
▶ 2014 Market Value	\$235.4 M
▶ 2010-2014 (Annualized)	9.99%
▶ 1985-2014 (Annualized)	8.54%

Falmouth

80 Davis Straits, Suite 102
Falmouth, MA 02540
Phone 508-457-0578
Fax 508-540-9962

Board Members

Paul D. Brodeur (Chairperson),
Gary W. Anderson, Russell R. Ferreira,
Jennifer P. Petit, Ellen K. Philbin

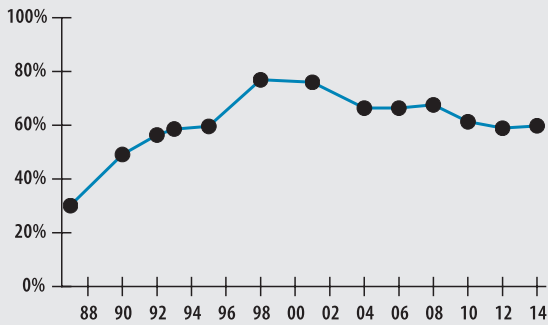
Board Administrator

Francis X. St. Germaine III

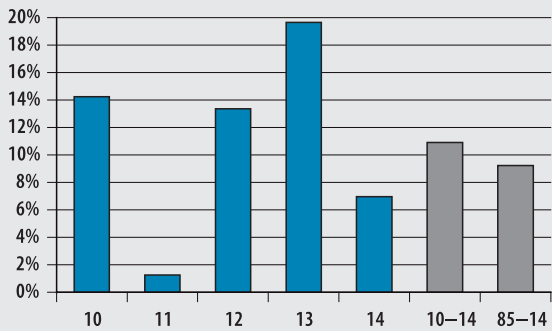
Board Meeting

Varies

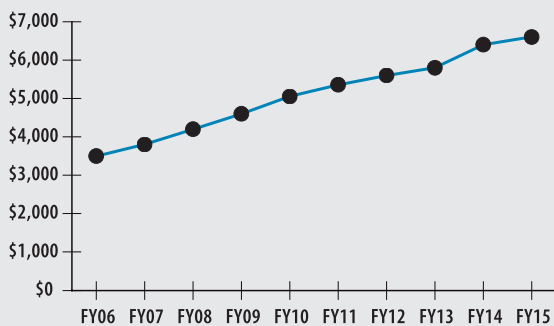
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.23%

29 years 2013

9.31%

28 years 2012

8.96%

10 years 2014

6.61%

10 years 2013

6.95%

10 years 2012

7.06%

5 years 2014

10.92%

5 years 2013

12.34%

5 years 2012

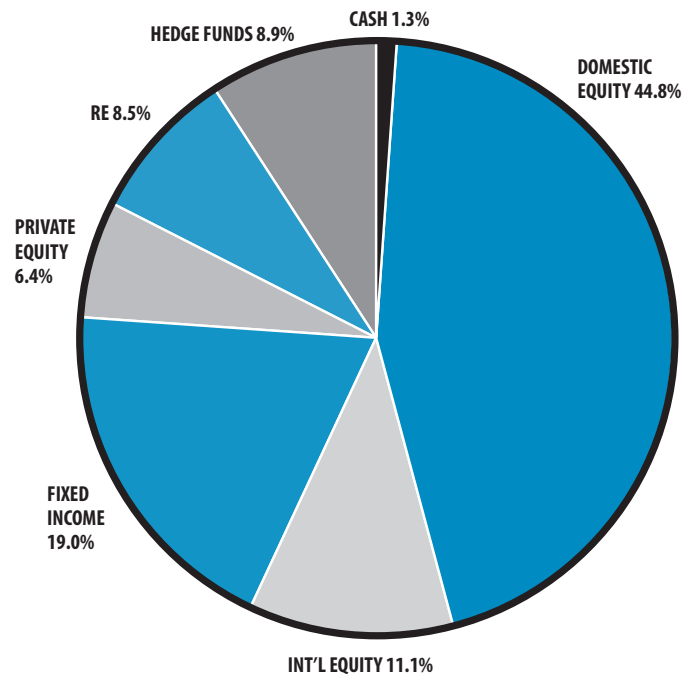
2.44%

ACTUARIAL

▶ Funded Ratio	59.8%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	5.0% Total Increasing
▶ Year Fully Funded	2033
▶ Unfunded Liability	\$68.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$6.6 M

	ACTIVE	RETIRED
▶ Number of Members	576	374
▶ Total Payroll/Benefit	\$27.5 M	\$9.2 M
▶ Average Salary/Benefit	\$47,700	\$24,600
▶ Average Age	49	72
▶ Average Service	12.6 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	39
▶ Number Who Reported Earnings	15
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	0

▶ 2014 Return	6.98%
▶ 2014 Market Value	\$114.8 M
▶ 2010-2014 (Annualized)	10.92%
▶ 1985-2014 (Annualized)	9.23%

Board Members

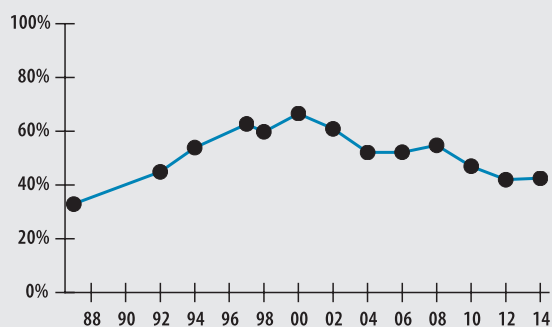
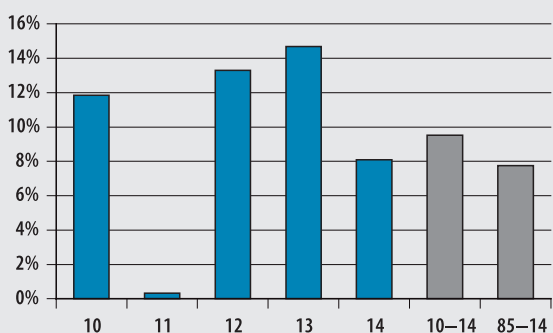
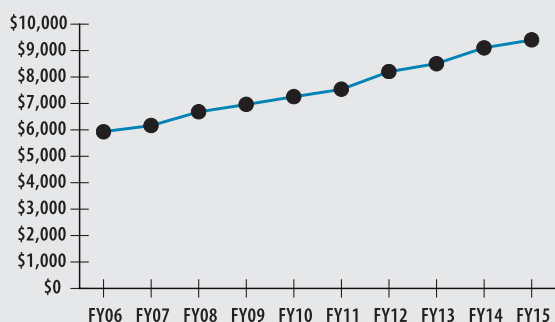
Richard N. Sarasin (Chairperson),
John C. Curran, Thomas A. Dateo, Jr.,
Ellen M. Jerszyk, Norman J. LeBlanc

Board Administrator

Diane G. Vieweg

Board Meeting

Fourth Tuesday of each month at 10:00 am

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY

30 years 2014
7.76%

29 years 2013
7.75%

28 years 2012
7.51%

10 years 2014
5.65%

10 years 2013
5.62%

10 years 2012
5.87%

5 years 2014
9.53%

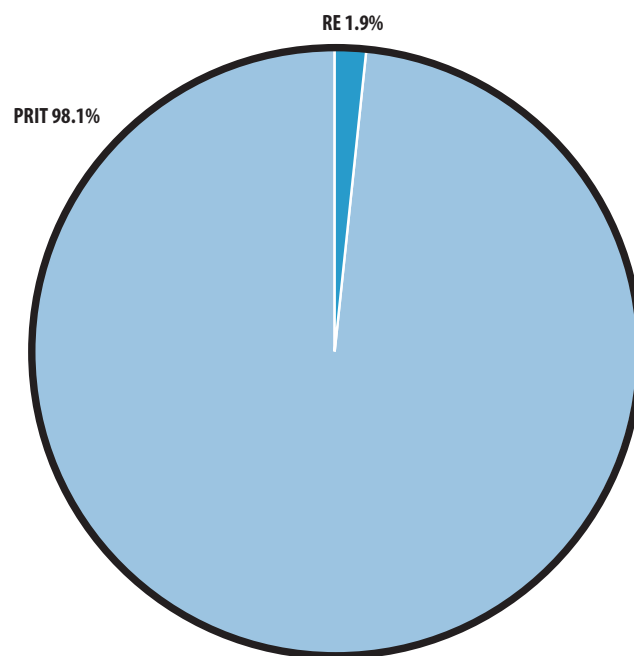
5 years 2013
10.84%

5 years 2012
1.25%

ACTUARIAL

▶ Funded Ratio	42.5%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.95%
▶ Funding Schedule	6.0 % Total Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$122.3 M
▶ Total Pension Appropriation (Fiscal 2015)	\$9.4 M

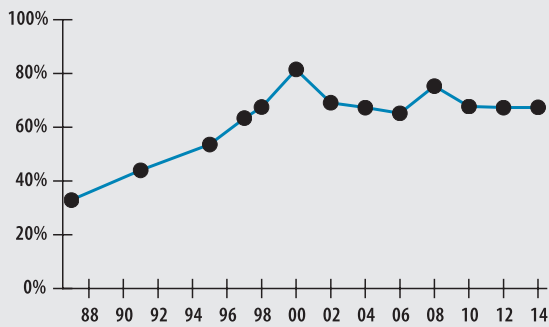
	ACTIVE	RETIRED
▶ Number of Members	605	549
▶ Total Payroll/Benefit	\$27.6 M	\$12.9 M
▶ Average Salary/Benefit	\$45,600	\$23,400
▶ Average Age	47	NA
▶ Average Service	12.6 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

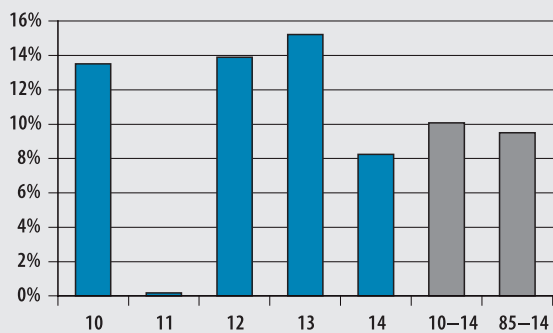
▶ Number of Disability Retirees	54
▶ Number Who Reported Earnings	7
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.09%
▶ 2014 Market Value	\$100.2 M
▶ 2010-2014 (Annualized)	9.53%
▶ 1985-2014 (Annualized)	7.76%

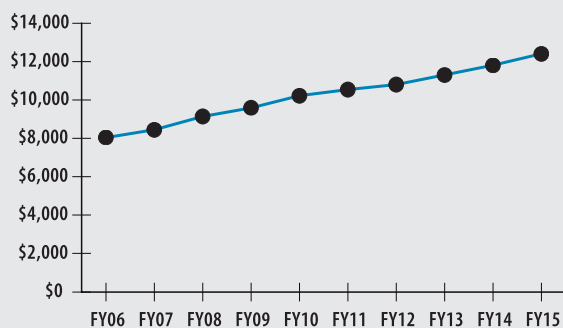
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



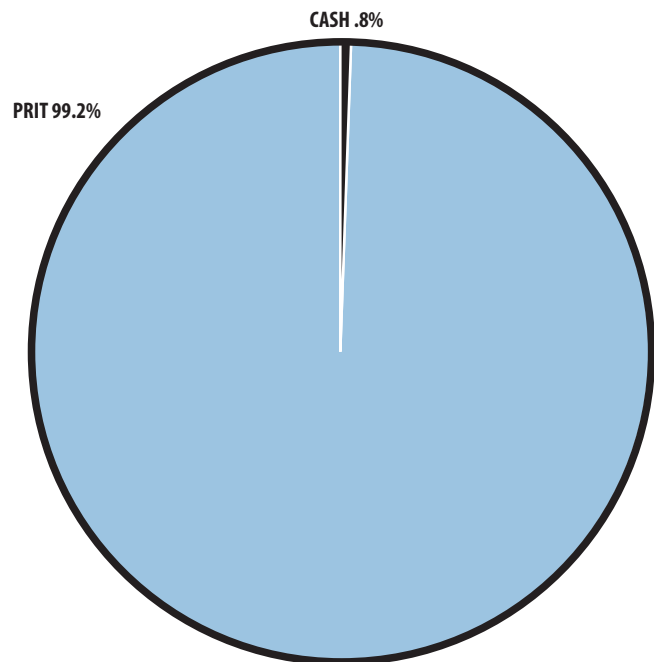
INVESTMENT RETURN HISTORY

30 years 2014 9.51%	29 years 2013 9.55%	28 years 2012 9.35%
10 years 2014 7.08%	10 years 2013 7.68%	10 years 2012 8.67%
5 years 2014 10.07%	5 years 2013 11.90%	5 years 2012 1.48%

ACTUARIAL

▶ Funded Ratio		67.4%
▶ Date of Last Valuation		01/14
▶ Actuary		PERAC
▶ Assumed Rate of Return		7.75%
▶ Funding Schedule		5.0% Total Increasing
▶ Year Fully Funded		2030
▶ Unfunded Liability		\$110.4 M
▶ Total Pension Appropriation (Fiscal 2015)		\$12.4 M
	ACTIVE	RETIRED
▶ Number of Members	1,110	806
▶ Total Payroll/Benefit	\$55.7 M	\$19.2 M
▶ Average Salary/Benefit	\$50,200	\$23,900
▶ Average Age	47	74
▶ Average Service	12.6 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	67
▶ Number Who Reported Earnings	22
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.25%
▶ 2014 Market Value	\$259.4 M
▶ 2010-2014 (Annualized)	10.07%
▶ 1985-2014 (Annualized)	9.51%

Board Members

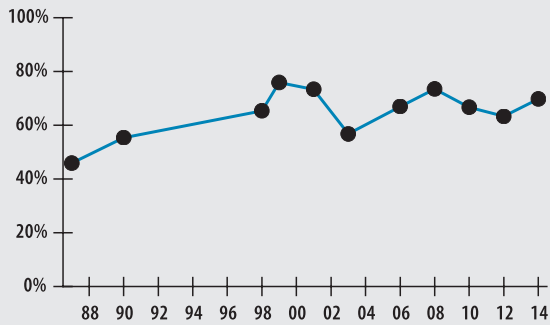
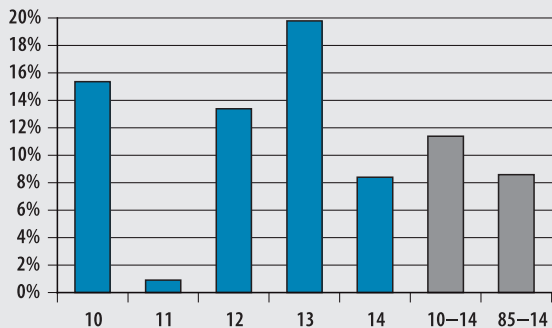
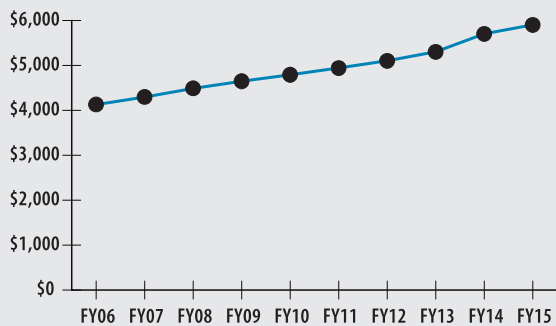
Sandra A. Hanks (Chairperson),
David Gendron, Paula Light, Paul Mokrzecki,
Mary A. Stokarski

Board Administrator

Dale Kowacki

Board Meeting

Usually meets the last Wednesday
of each month

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

8.59%

29 years 2013

8.59%

28 years 2012

8.21%

10 years 2014

7.25%

10 years 2013

7.28%

10 years 2012

7.04%

5 years 2014

11.39%

5 years 2013

13.33%

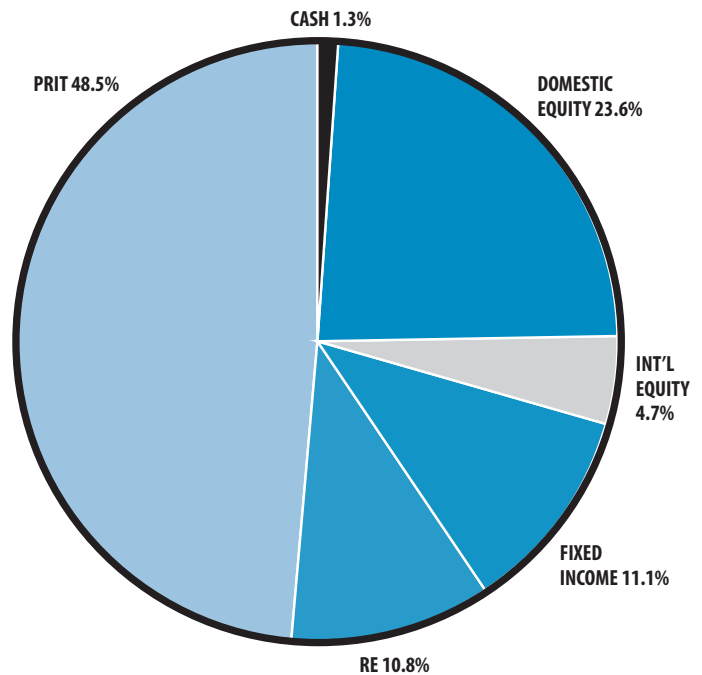
5 years 2012

2.69%

ACTUARIAL

▶ Funded Ratio	69.8%
▶ Date of Last Valuation	01/14
▶ Actuary	KMS Actuaries
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2035
▶ Unfunded Liability	\$45.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.9 M

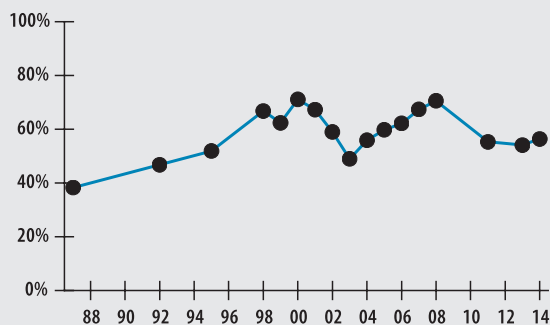
	ACTIVE	RETIRED
▶ Number of Members	928	520
▶ Total Payroll/Benefit	\$30.9 M	\$7.5 M
▶ Average Salary/Benefit	\$33,200	\$14,500
▶ Average Age	48	72
▶ Average Service	10.5 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

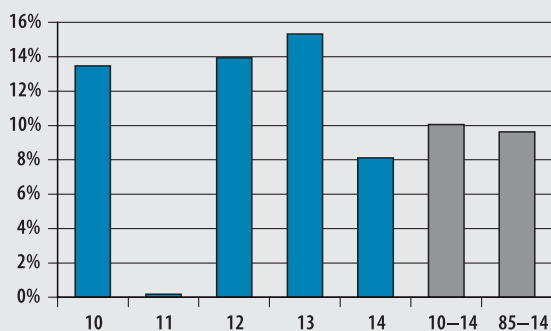
▶ Number of Disability Retirees	19
▶ Number Who Reported Earnings	6
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.42%
▶ 2014 Market Value	\$119.7 M
▶ 2010-2014 (Annualized)	11.39%
▶ 1985-2014 (Annualized)	8.59%

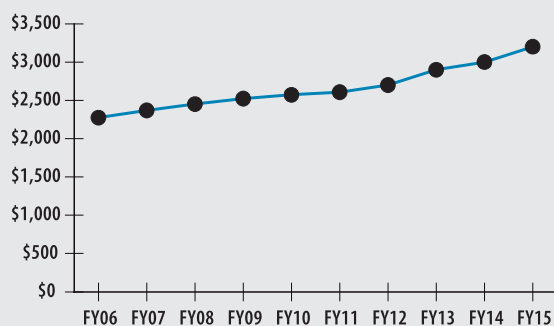
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

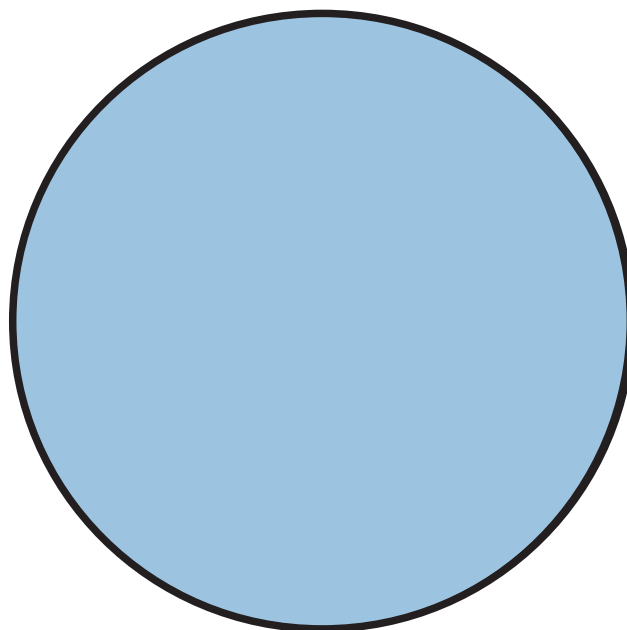
30 years 2014 9.63%	29 years 2013 9.68%	28 years 2012 9.49%
10 years 2014 7.05%	10 years 2013 7.66%	10 years 2012 8.64%
5 years 2014 10.06%	5 years 2013 11.93%	5 years 2012 1.43%

ACTUARIAL

▶ Funded Ratio	56.4%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2031
▶ Unfunded Liability	\$34.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.2 M

	ACTIVE	RETIRED
▶ Number of Members	261	241
▶ Total Payroll/Benefit	\$10.7 M	\$5.0 M
▶ Average Salary/Benefit	\$40,900	\$20,800
▶ Average Age	48	73
▶ Average Service	13.3 years	NA

ASSET ALLOCATION (12/31/14)



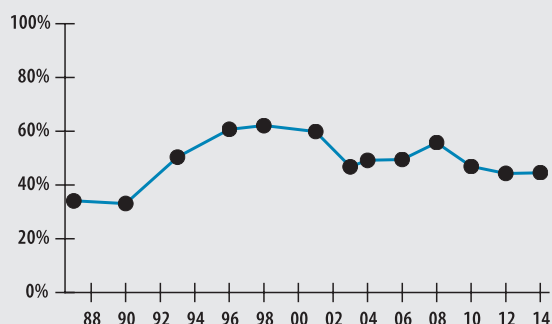
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

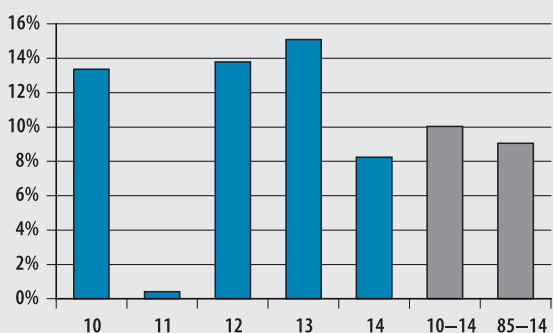
▶ Number of Disability Retirees	23
▶ Number Who Reported Earnings	4
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.11%
▶ 2014 Market Value	\$47.0 M
▶ 2010-2014 (Annualized)	10.06%
▶ 1985-2014 (Annualized)	9.63%

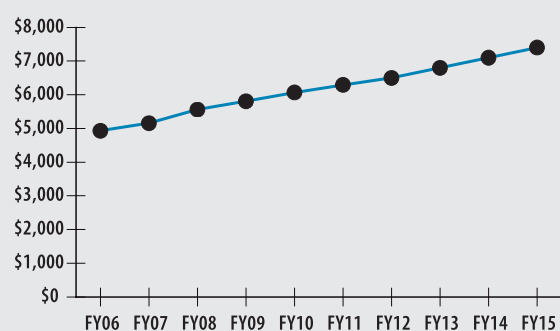
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.06%

29 years 2013
9.08%

28 years 2012
8.88%

10 years 2014
6.22%

10 years 2013
6.51%

10 years 2012
7.13%

5 years 2014
10.04%

5 years 2013
11.87%

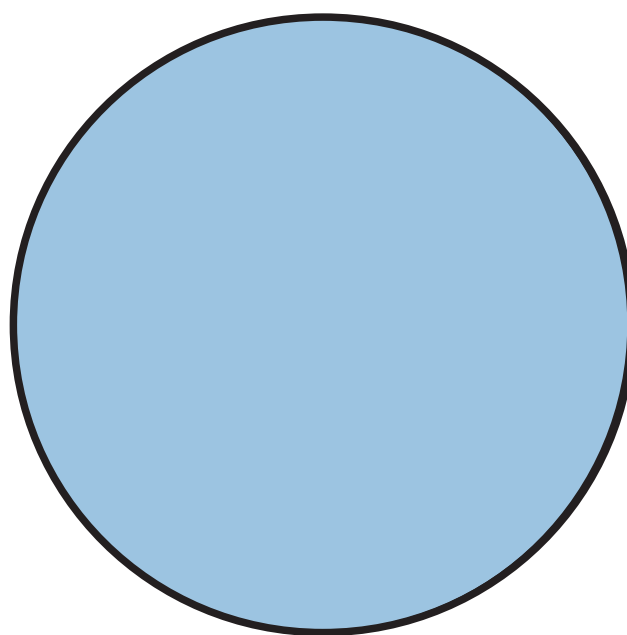
5 years 2012
1.53%

ACTUARIAL

▶ Funded Ratio	44.6%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	6.15% Total Increasing
▶ Year Fully Funded	2034
▶ Unfunded Liability	\$97.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$7.4 M

	ACTIVE	RETIRED
▶ Number of Members	517	454
▶ Total Payroll/Benefit	\$26.6 M	\$10.4 M
▶ Average Salary/Benefit	\$51,500	\$22,900
▶ Average Age	50	NA
▶ Average Service	12.9 years	NA

ASSET ALLOCATION (12/31/14)



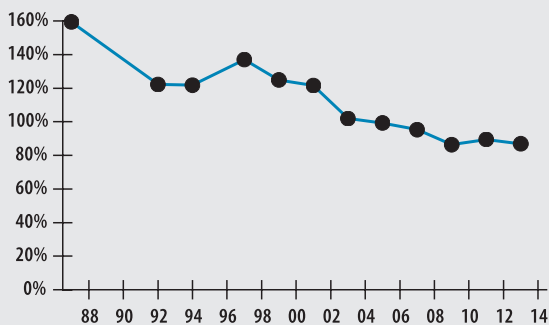
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

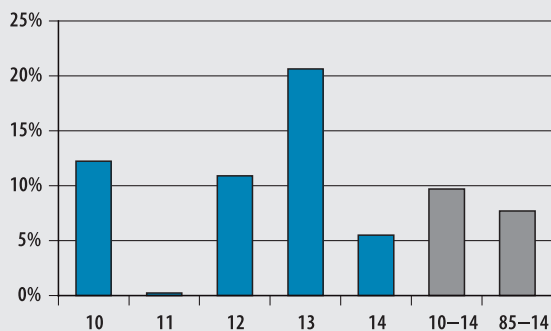
▶ Number of Disability Retirees	43
▶ Number Who Reported Earnings	12
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.24%
▶ 2014 Market Value	\$87.7 M
▶ 2010-2014 (Annualized)	10.04%
▶ 1985-2014 (Annualized)	9.06%

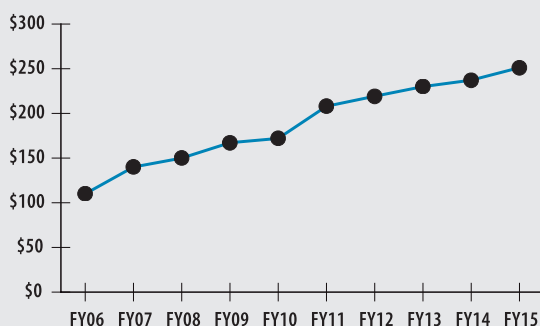
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

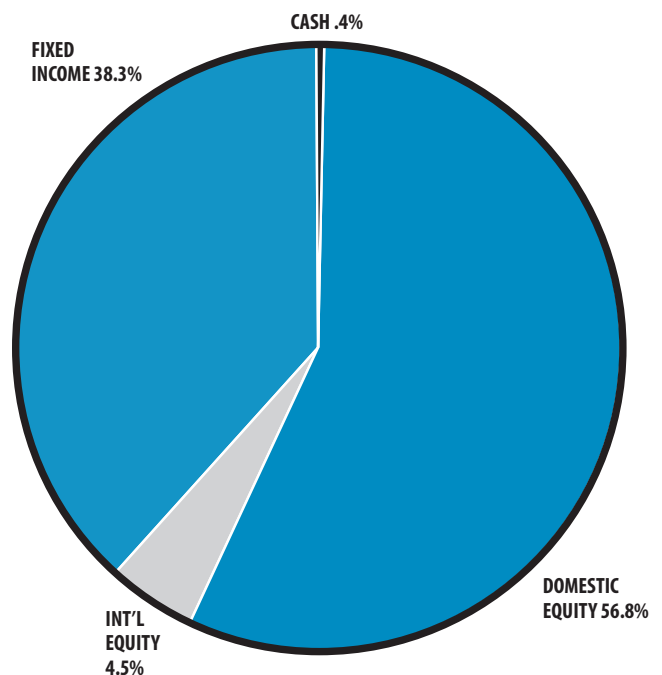
30 years 2014 7.70%	29 years 2013 7.78%	28 years 2012 7.34%
10 years 2014 6.95%	10 years 2013 7.04%	10 years 2012 6.25%
5 years 2014 9.70%	5 years 2013 13.54%	5 years 2012 4.55%

ACTUARIAL

▶ Funded Ratio	86.9%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.5% Increasing
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$1.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$251,000

	ACTIVE	RETIRED
▶ Number of Members	40	24
▶ Total Payroll/Benefit	\$2.4 M	\$497,000
▶ Average Salary/Benefit	\$59,000	\$20,700
▶ Average Age	54	73
▶ Average Service	18.7 years	NA

ASSET ALLOCATION (12/31/14)

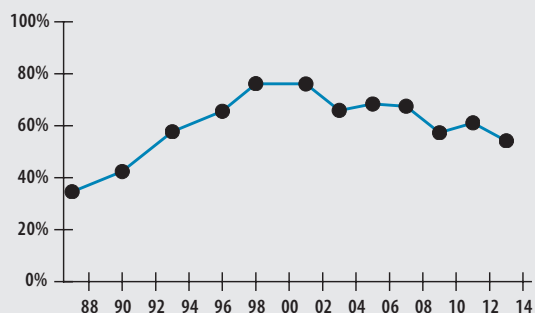


EARNED INCOME OF DISABILITY RETIREES (2013)

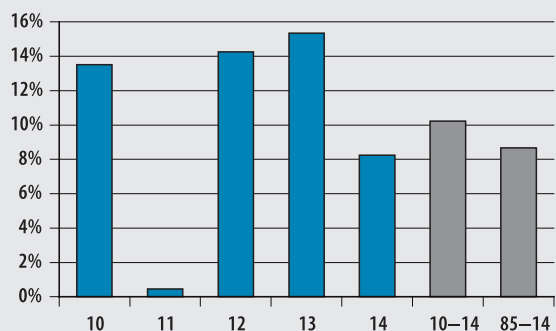
▶ Number of Disability Retirees	0
▶ Number Who Reported Earnings	0
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	5.51%
▶ 2014 Market Value	\$15.0 M
▶ 2010-2014 (Annualized)	9.70%
▶ 1985-2014 (Annualized)	7.70%

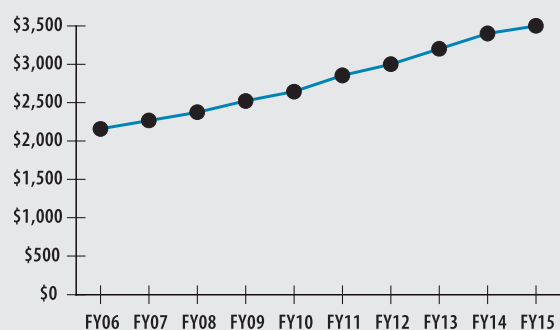
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.67%

29 years 2013
8.68%

28 years 2012
8.45%

10 years 2014
6.60%

10 years 2013
6.82%

10 years 2012
6.86%

5 years 2014
10.22%

5 years 2013
12.22%

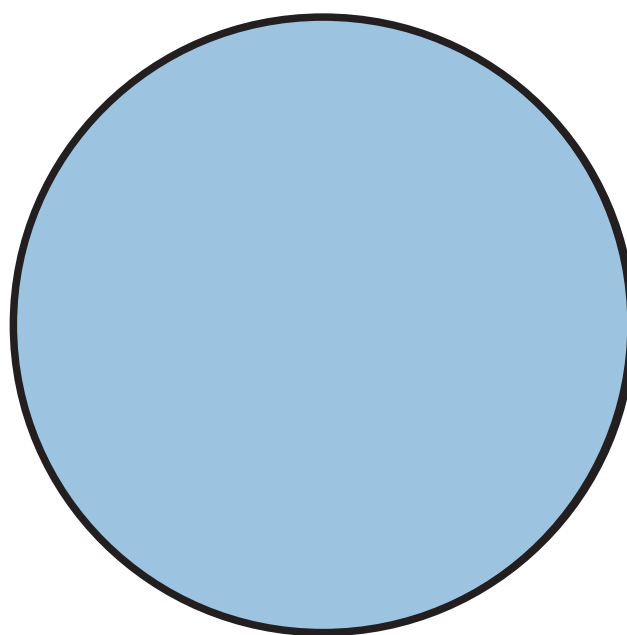
5 years 2012
2.12%

ACTUARIAL

▶ Funded Ratio	54.2%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	5.5% Total Increasing
▶ Year Fully Funded	2037
▶ Unfunded Liability	\$41.2 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.5 M

	ACTIVE	RETIRED
▶ Number of Members	412	244
▶ Total Payroll/Benefit	\$14.9 M	\$5.0 M
▶ Average Salary/Benefit	\$36,200	\$20,600
▶ Average Age	47	70
▶ Average Service	10.4 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	16
▶ Number Who Reported Earnings	6
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$8,743.18

▶ 2014 Return	8.24%
▶ 2014 Market Value	\$58.9 M
▶ 2010-2014 (Annualized)	10.22%
▶ 1985-2014 (Annualized)	8.67%

Board Members

Richard M. Theroux (Chairperson),
Patricia C. Donovan, Patrick O'Neil,
Laurel Placzek, Karl Schmaelzle

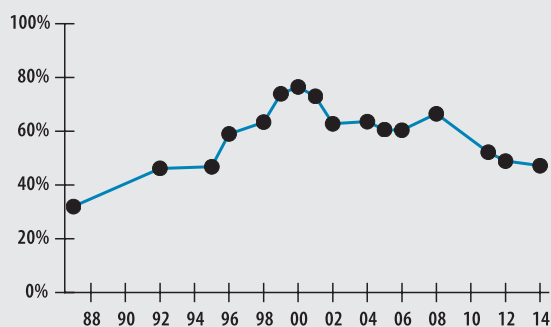
Board Administrator

Julianne Bartley

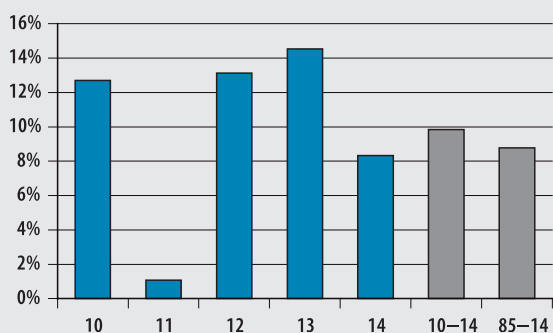
Board Meeting

Next to the last business day of each month

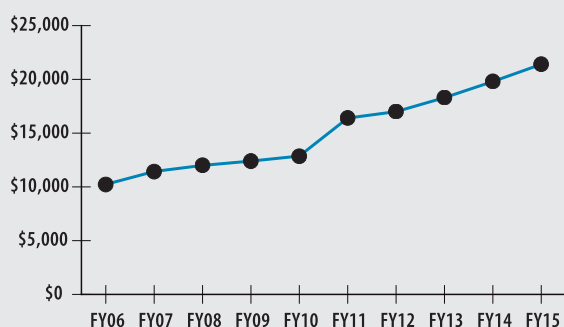
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.78%

29 years 2013
8.79%

28 years 2012
8.59%

10 years 2014
5.91%

10 years 2013
6.04%

10 years 2012
6.59%

5 years 2014
9.84%

5 years 2013
11.18%

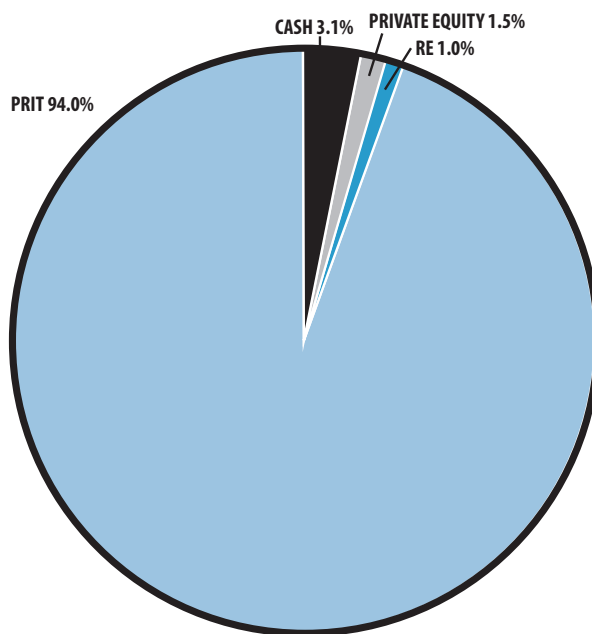
5 years 2012
2.14%

ACTUARIAL

▶ Funded Ratio	47.2%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$298.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$21.4 M

	ACTIVE	RETIRED
▶ Number of Members	2,553	1,581
▶ Total Payroll/Benefit	\$100.1 M	\$28.7 M
▶ Average Salary/Benefit	\$39,200	\$18,100
▶ Average Age	49	NA
▶ Average Service	12.4 years	NA

ASSET ALLOCATION (12/31/14)

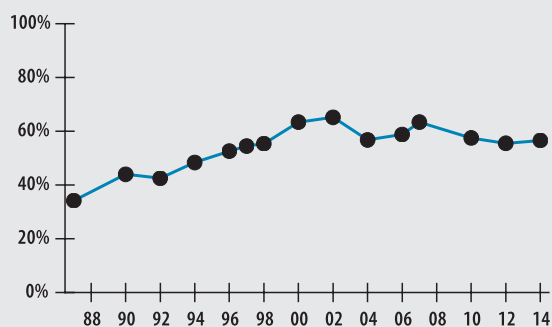


EARNED INCOME OF DISABILITY RETIREES (2013)

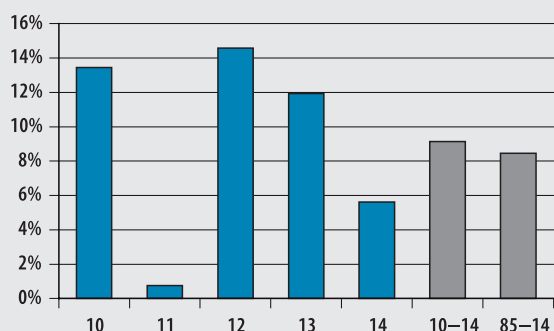
▶ Number of Disability Retirees	104
▶ Number Who Reported Earnings	37
▶ Number of Excess Earners	3
▶ Total Amount of Refund Due	\$38,384.50

▶ 2014 Return	8.32%
▶ 2014 Market Value	\$299.4 M
▶ 2010-2014 (Annualized)	9.84%
▶ 1985-2014 (Annualized)	8.78%

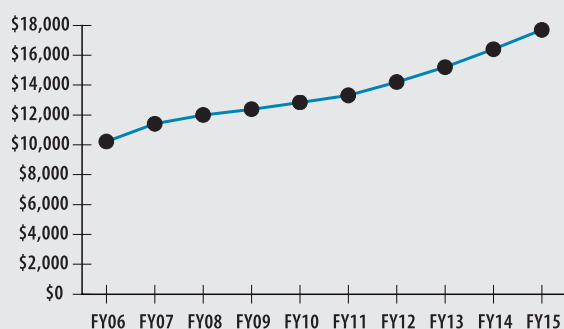
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

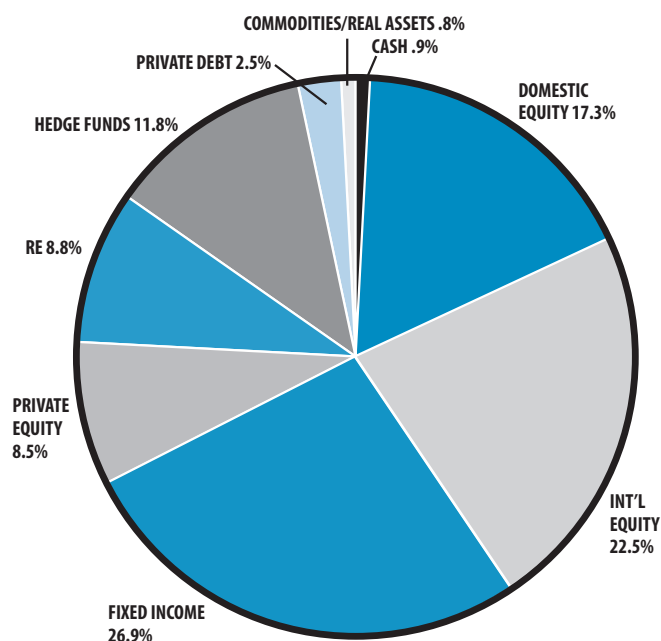
30 years 2014 8.46%	29 years 2013 8.56%	28 years 2012 8.44%
10 years 2014 6.44%	10 years 2013 6.98%	10 years 2012 7.95%
5 years 2014 9.13%	5 years 2013 11.99%	5 years 2012 3.73%

ACTUARIAL

▶ Funded Ratio	56.6%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2034
▶ Unfunded Liability	\$180.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$17.7 M

	ACTIVE	RETIRED
▶ Number of Members	1,899	1,140
▶ Total Payroll/Benefit	\$73.4 M	\$21.0 M
▶ Average Salary/Benefit	\$38,700	\$18,500
▶ Average Age	49	72
▶ Average Service	11.7 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	74
▶ Number Who Reported Earnings	29
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$399.49

▶ 2014 Return	5.62%
▶ 2014 Market Value	\$257.9 M
▶ 2010-2014 (Annualized)	9.13%
▶ 1985-2014 (Annualized)	8.46%

Haverhill

4 Summer Street
Room 303
Haverhill, MA 01830-5843
Phone 978-374-2358
Fax 978-374-2353

Board Members

William J. Klueber (Chairperson),
James P. Cleary, III, Esq. Lewis F. Poore, Jr.,
Donald J. Shea, Andrew Vanni

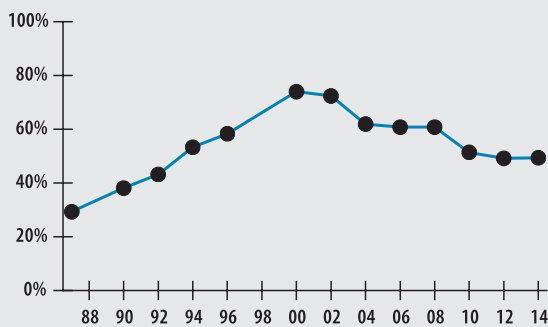
Board Administrator

Sheryl C. Trezise

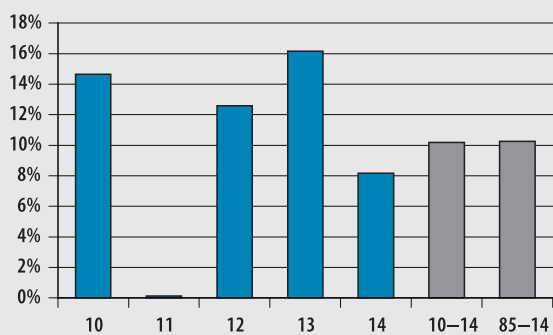
Board Meeting

Second Tuesday each month at 9:00 am

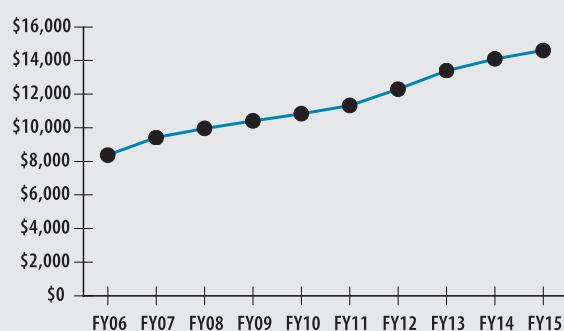
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

10.27%

29 years 2013

10.35%

28 years 2012

10.15%

10 years 2014

7.13%

10 years 2013

7.53%

10 years 2012

8.30%

5 years 2014

10.18%

5 years 2013

12.47%

5 years 2012

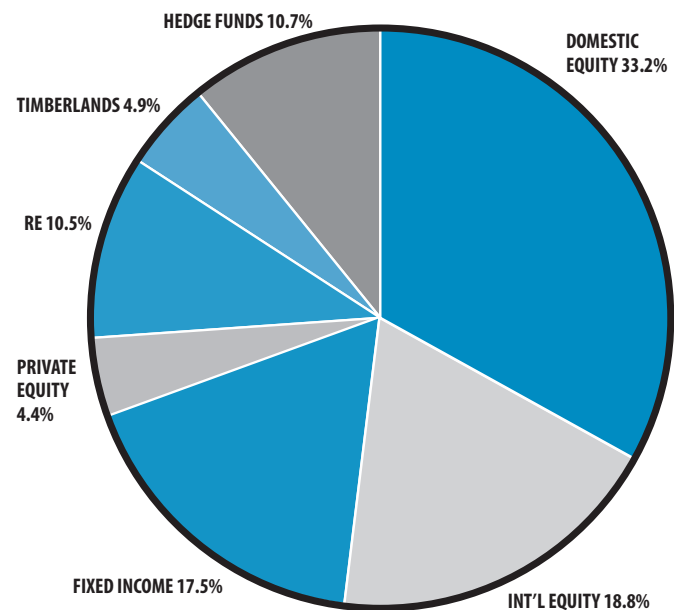
2.71%

ACTUARIAL

▶ Funded Ratio	49.4%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$162.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$14.6 M

	ACTIVE	RETIRED
▶ Number of Members	888	1,080
▶ Total Payroll/Benefit	\$36.8 M	\$22.6 M
▶ Average Salary/Benefit	\$41,400	\$21,000
▶ Average Age	49	73
▶ Average Service	12.9 years	NA

ASSET ALLOCATION (12/31/14)

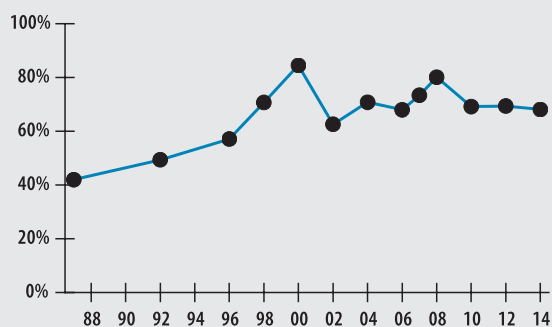


EARNED INCOME OF DISABILITY RETIREES (2013)

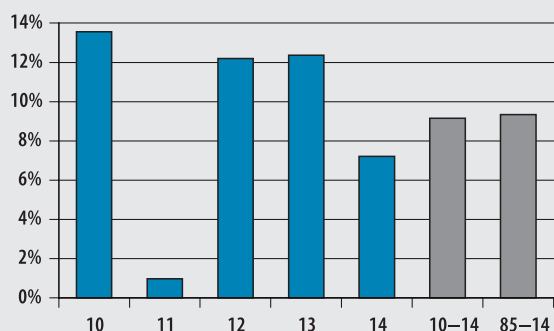
▶ Number of Disability Retirees	84
▶ Number Who Reported Earnings	20
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.16%
▶ 2014 Market Value	\$173.7 M
▶ 2010-2014 (Annualized)	10.18%
▶ 1985-2014 (Annualized)	10.27%

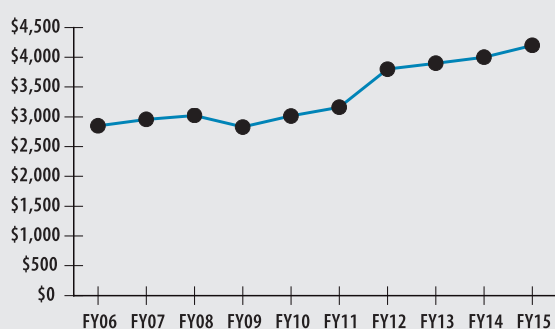
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.34%

29 years 2013
9.42%

28 years 2012
9.31%

10 years 2014
6.64%

10 years 2013
7.32%

10 years 2012
8.60%

5 years 2014
9.16%

5 years 2013
11.22%

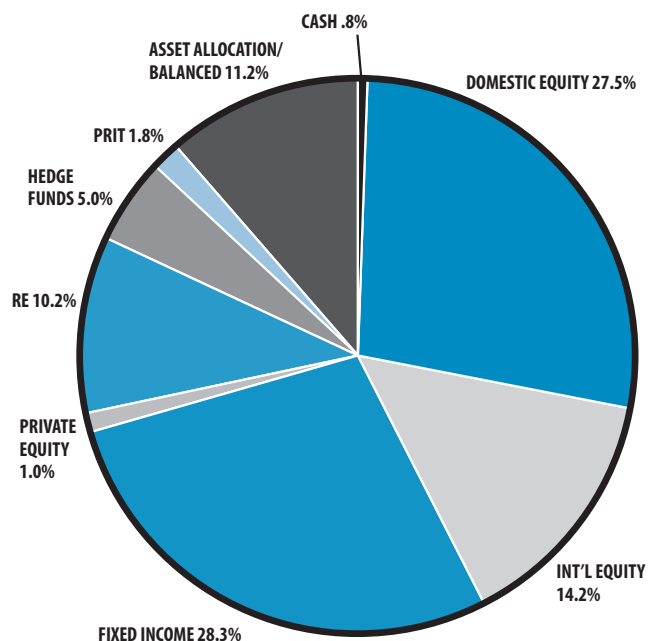
5 years 2012
1.35%

ACTUARIAL

▶ Funded Ratio	68.1%
▶ Date of Last Valuation	01/14
▶ Actuary	KMS Actuaries
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2038
▶ Unfunded Liability	\$41.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$4.2 M

	ACTIVE	RETIRED
▶ Number of Members	597	294
▶ Total Payroll/Benefit	\$27.0 M	\$6.7 M
▶ Average Salary/Benefit	\$45,300	\$22,800
▶ Average Age	49	74
▶ Average Service	10.8 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	13
▶ Number Who Reported Earnings	3
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	7.21%
▶ 2014 Market Value	\$97.0 M
▶ 2010-2014 (Annualized)	9.16%
▶ 1985-2014 (Annualized)	9.34%

Board Members

John T. McCarthy (Chairperson),
Michele Aubrey, Daniel R. Owens,
Bellamy Schmidt

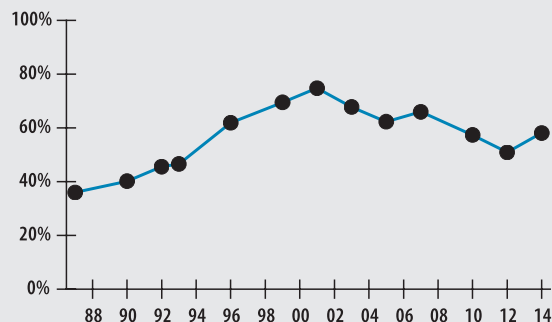
Board Administrator

Cheryl A. Dugre

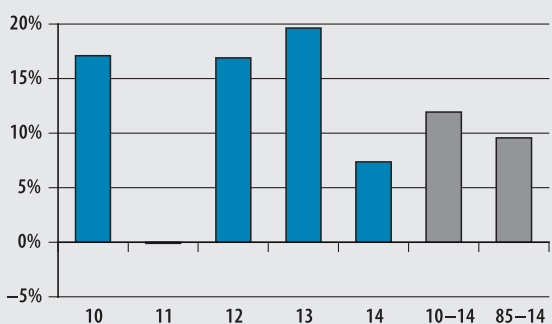
Board Meeting

Third Tuesday of each month at 9:00 am

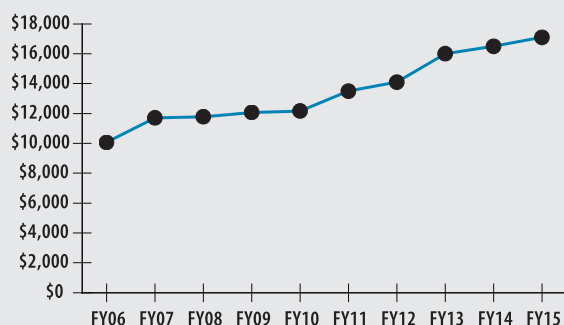
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.57%

29 years 2013
9.64%

28 years 2012
9.30%

10 years 2014
6.78%

10 years 2013
6.96%

10 years 2012
7.21%

5 years 2014
11.94%

5 years 2013
15.83%

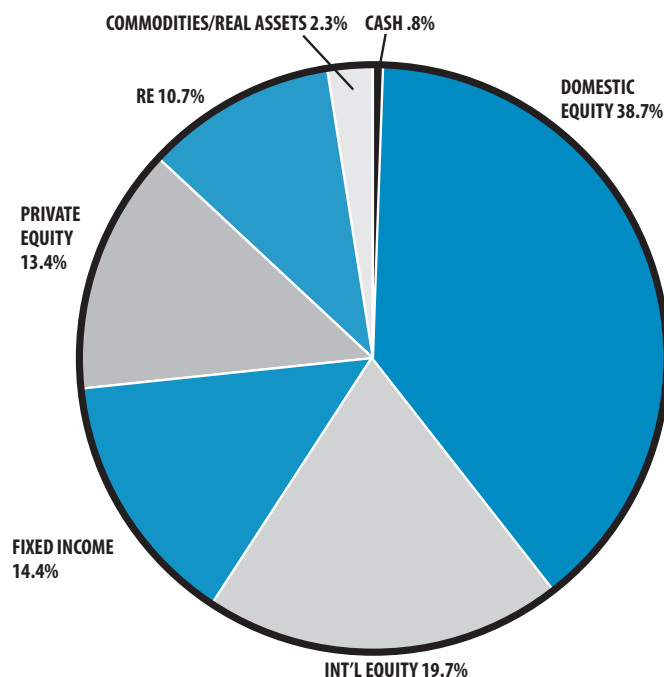
5 years 2012
3.30%

ACTUARIAL

▶ Funded Ratio	58.1%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	2.75% Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$153.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$17.1 M

	ACTIVE	RETIRED
▶ Number of Members	1,250	927
▶ Total Payroll/Benefit	\$55.0 M	\$22.2 M
▶ Average Salary/Benefit	\$44,000	\$23,900
▶ Average Age	46	NA
▶ Average Service	12.2 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	70
▶ Number Who Reported Earnings	16
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$2,560.03

▶ 2014 Return	7.37%
▶ 2014 Market Value	\$232.9 M
▶ 2010-2014 (Annualized)	11.94%
▶ 1985-2014 (Annualized)	9.57%

Board Members

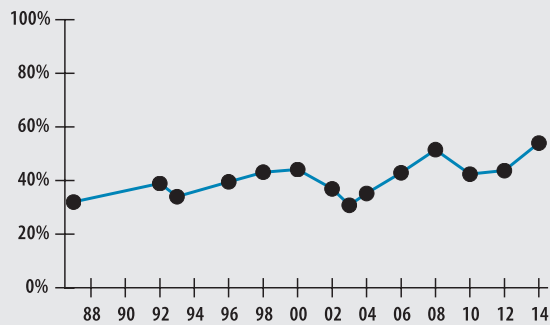
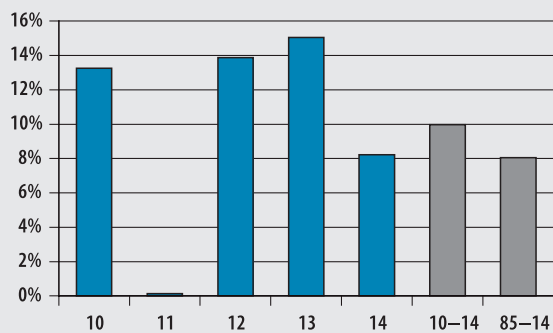
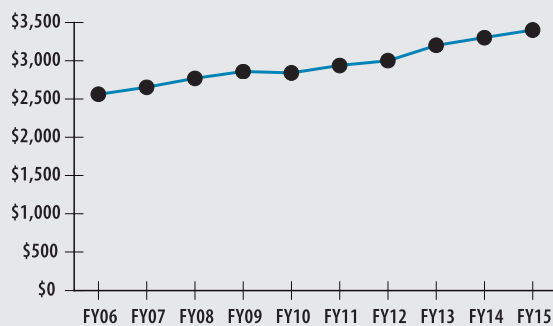
J. Michael Buckley, Gregory Galvin,
John J. King, Brian Thompson

Board Administrator

Lauren Durham

Board Meeting

Last Wednesday of the month

FUNDED RATIO (1987-2014)**INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)****10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)****INVESTMENT RETURN HISTORY****30 years 2014**

8.05%

29 years 2013

8.04%

28 years 2012

7.80%

10 years 2014

7.04%

10 years 2013

7.48%

10 years 2012

8.22%

5 years 2014

9.97%

5 years 2013

11.82%

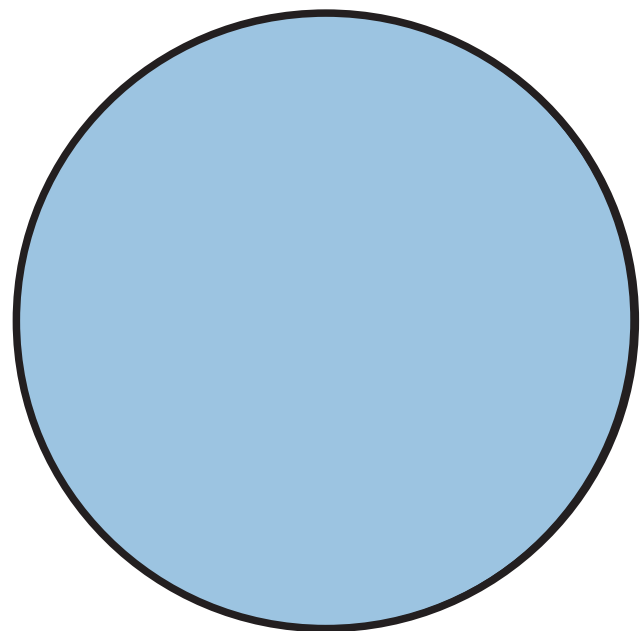
5 years 2012

1.46%

ACTUARIAL

▶ Funded Ratio	54.0%
▶ Date of Last Valuation	01/14
▶ Actuary	Odyssey
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	3.8% Increasing
▶ Year Fully Funded	2031
▶ Unfunded Liability	\$29.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.4 M

	ACTIVE	RETIRED
▶ Number of Members	178	130
▶ Total Payroll/Benefit	\$9.3 M	\$3.4 M
▶ Average Salary/Benefit	\$52,200	\$26,400
▶ Average Age	52	NA
▶ Average Service	12.9 years	NA

ASSET ALLOCATION (12/31/14)

PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	24
▶ Number Who Reported Earnings	9
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.23%
▶ 2014 Market Value	\$38.0 M
▶ 2010-2014 (Annualized)	9.97%
▶ 1985-2014 (Annualized)	8.05%

Lawrence

354 Merrimack Street
Suite 302, Entry C
Lawrence, MA 01843
Phone 978-620-3570
Fax 978-683-5894

Board Members

William F. Bateman (Chairperson),
Thomas M. Cuddy, Mark Ianello,
Kevin Loughlin, Gina M. Rizzo

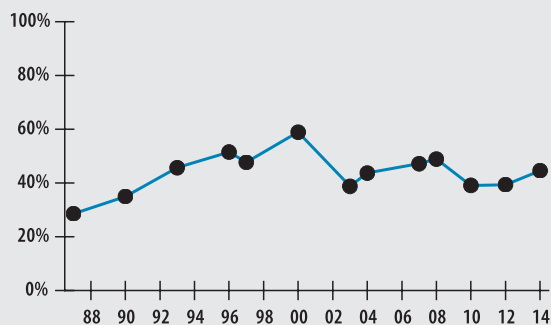
Board Administrator

Diane Cockroft

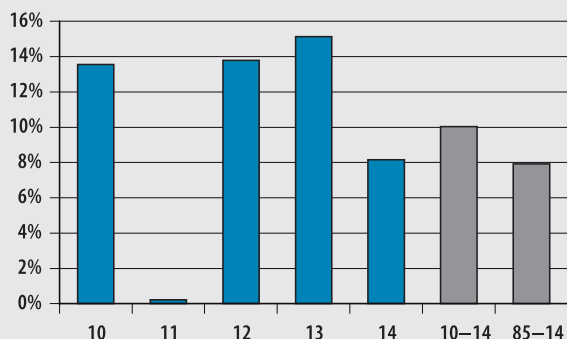
Board Meeting

Varies

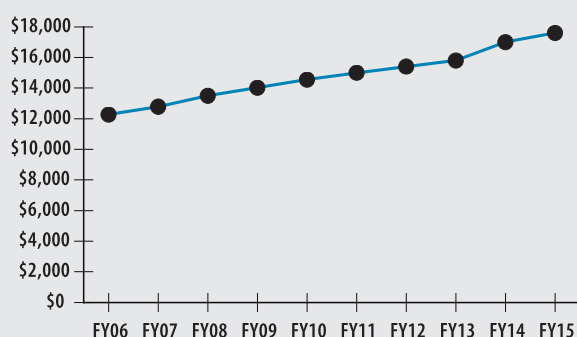
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
7.92%

29 years 2013
7.91%

28 years 2012
7.66%

10 years 2014
5.81%

10 years 2013
5.92%

10 years 2012
6.49%

5 years 2014
10.03%

5 years 2013
11.91%

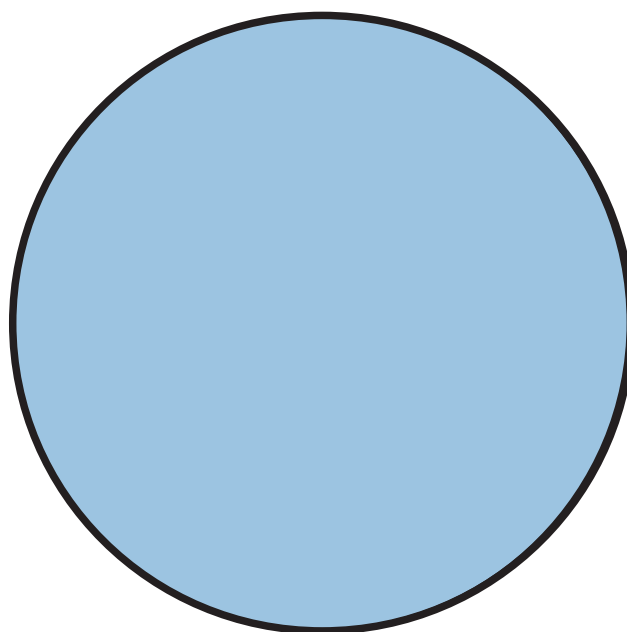
5 years 2012
1.55%

ACTUARIAL

▶ Funded Ratio	44.6%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	3.42% Increasing
▶ Year Fully Funded	2038
▶ Unfunded Liability	\$210.2 M
▶ Total Pension Appropriation (Fiscal 2015)	\$17.6 M

	ACTIVE	RETIRED
▶ Number of Members	1,519	879
▶ Total Payroll/Benefit	\$67.8 M	\$21.6 M
▶ Average Salary/Benefit	\$44,600	\$24,600
▶ Average Age	46	74
▶ Average Service	10.8 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	109
▶ Number Who Reported Earnings	23
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.15%
▶ 2014 Market Value	\$181.2 M
▶ 2010-2014 (Annualized)	10.03%
▶ 1985-2014 (Annualized)	7.92%

Leominster

City Hall, Room 15
25 West Street
Leominster, MA 01453
Phone 978-534-7507, ext. 246
Fax 978-534-7508

Board Members

John J. Richard (Chairperson),
David R. LaPlante, Mark R. O'Donnell,
John P. Perry, John F. Picone

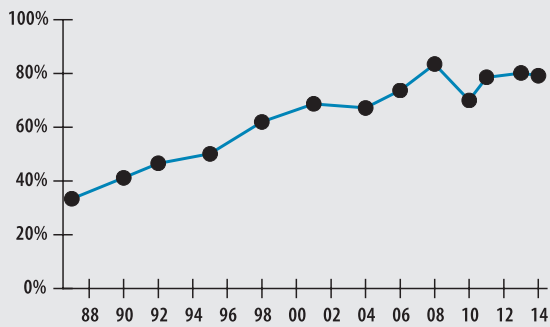
Board Administrator

Kerry Boudreau

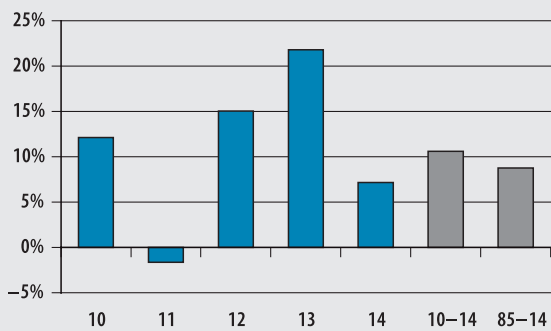
Board Meeting

Varies

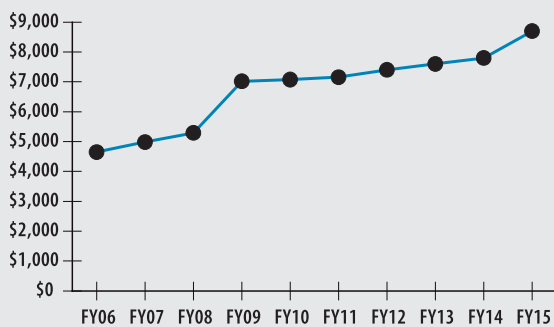
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.77%

29 years 2013

8.83%

28 years 2012

8.39%

10 years 2014

6.98%

10 years 2013

7.48%

10 years 2012

7.16%

5 years 2014

10.63%

5 years 2013

13.31%

5 years 2012

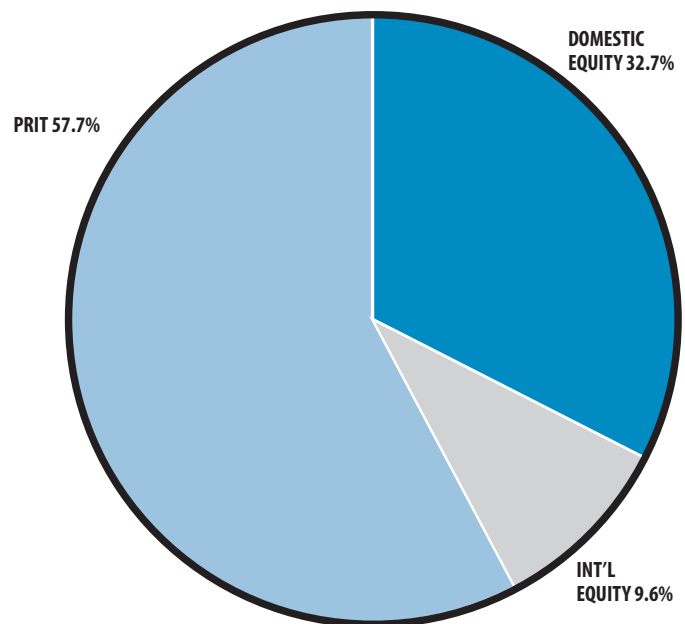
1.75%

ACTUARIAL

▶ Funded Ratio	79.2%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	5.50%
▶ Funding Schedule	Level
▶ Year Fully Funded	2022
▶ Unfunded Liability	\$37.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$8.7 M

	ACTIVE	RETIRED
▶ Number of Members	592	374
▶ Total Payroll/Benefit	\$26.2 M	\$7.6 M
▶ Average Salary/Benefit	\$44,200	\$20,400
▶ Average Age	47	74
▶ Average Service	12.2 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	28
▶ Number Who Reported Earnings	12
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	7.19%
▶ 2014 Market Value	\$155.8 M
▶ 2010-2014 (Annualized)	10.63%
▶ 1985-2014 (Annualized)	8.77%

Board Members

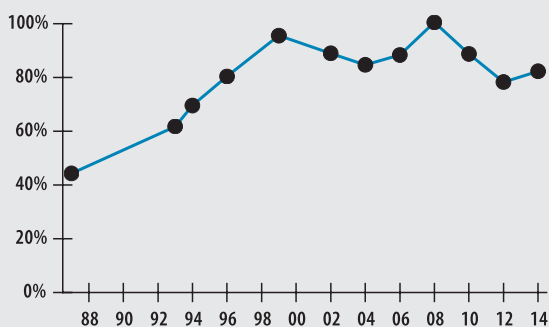
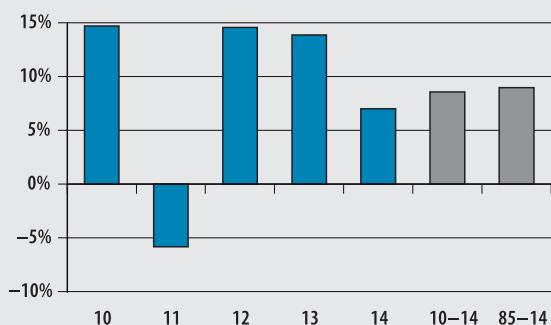
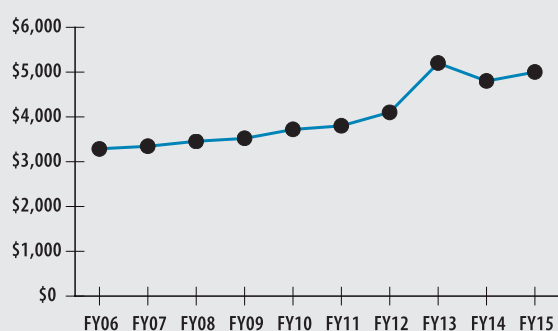
Robert Cunha (Chairperson),
Robert Addelson, Alan Fields, Joseph Foley,
Frederick Weiss

Board Administrator

Marguerite Oliva

Board Meeting

Varies

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

8.97%

29 years 2013

9.04%

28 years 2012

8.87%

10 years 2014

6.16%

10 years 2013

6.74%

10 years 2012

7.12%

5 years 2014

8.57%

5 years 2013

12.04%

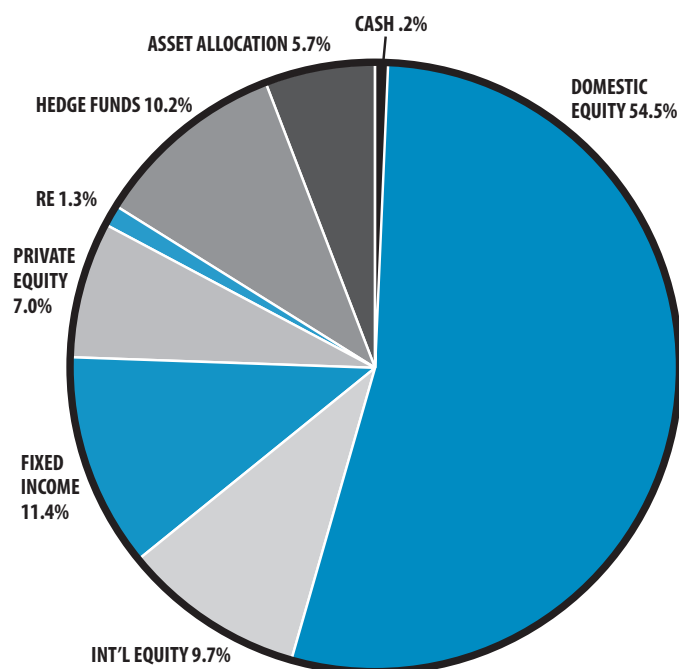
5 years 2012

0.82%

ACTUARIAL

▶ Funded Ratio	82.3%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2025
▶ Unfunded Liability	\$28.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.0 M

	ACTIVE	RETIRED
▶ Number of Members	646	392
▶ Total Payroll/Benefit	\$32.9 M	\$8.8 M
▶ Average Salary/Benefit	\$50,900	\$22,400
▶ Average Age	NA	74
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	19
▶ Number Who Reported Earnings	13
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	7.02%
▶ 2014 Market Value	\$138.0 M
▶ 2010-2014 (Annualized)	8.57%
▶ 1985-2014 (Annualized)	8.97%

Lowell

City Hall, Room 3
375 Merrimack Street
Lowell, MA 01852-5998
Phone 978-674-4094
Fax 978-446-7019

Board Members

Joseph Mahoney (Chairperson),
Michael M. Brennan, William Desrosiers,
David Keene, Hannah York

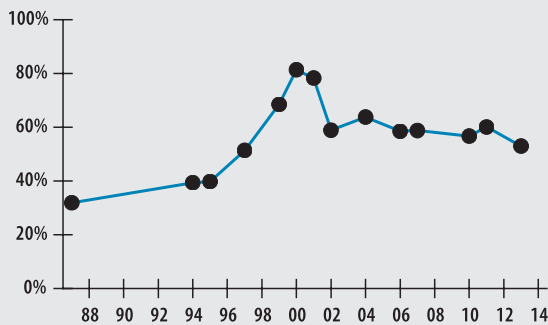
Board Administrator

Shannon Dowd

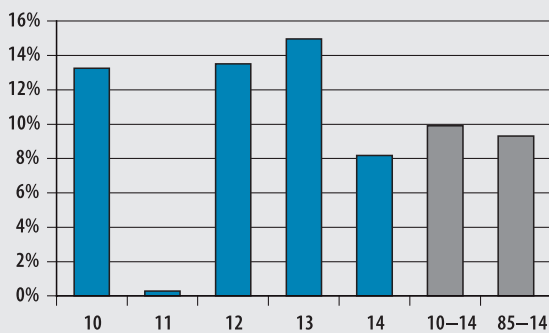
Board Meeting

Varies

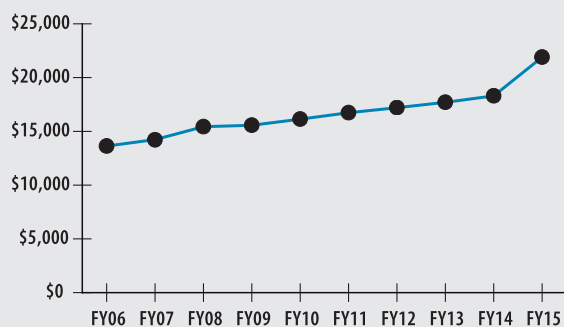
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.32%

29 years 2013

9.36%

28 years 2012

9.16%

10 years 2014

6.83%

10 years 2013

7.27%

10 years 2012

7.69%

5 years 2014

9.90%

5 years 2013

11.57%

5 years 2012

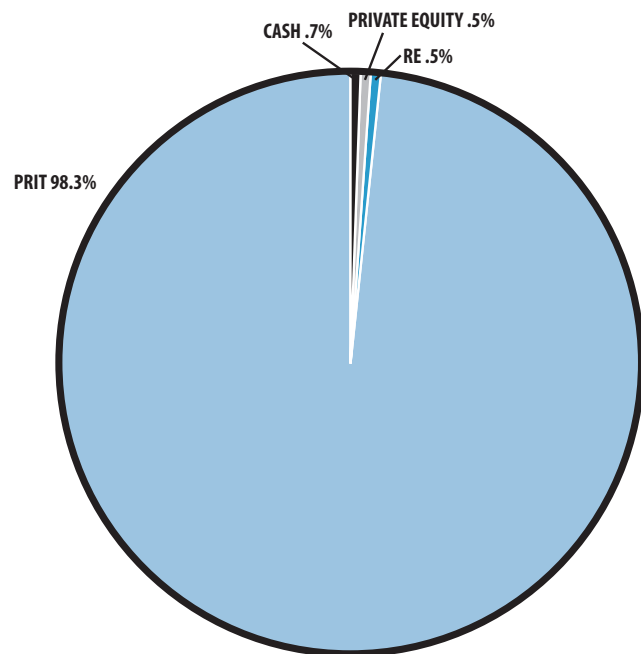
1.24%

ACTUARIAL

▶ Funded Ratio	53.0%
▶ Date of Last Valuation	01/13
▶ Actuary	KMS Actuaries
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$233.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$21.9 M

	ACTIVE	RETIRED
▶ Number of Members	1,621	1,159
▶ Total Payroll/Benefit	\$75.1 M	\$29.5 M
▶ Average Salary/Benefit	\$46,300	\$25,400
▶ Average Age	47	73
▶ Average Service	13.5 years	NA

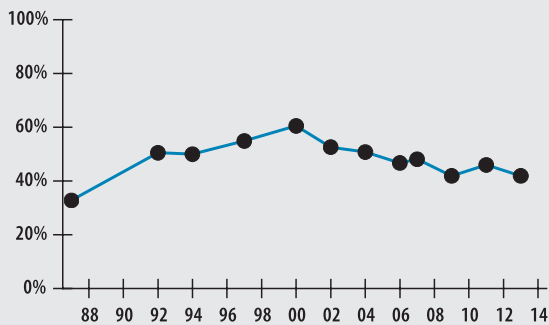
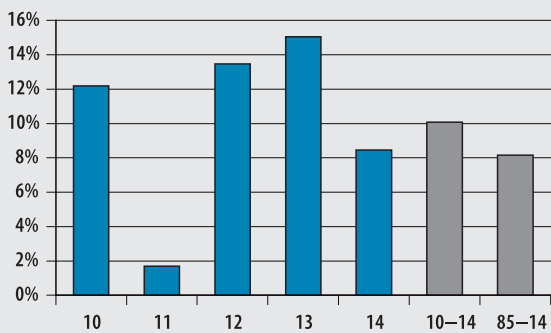
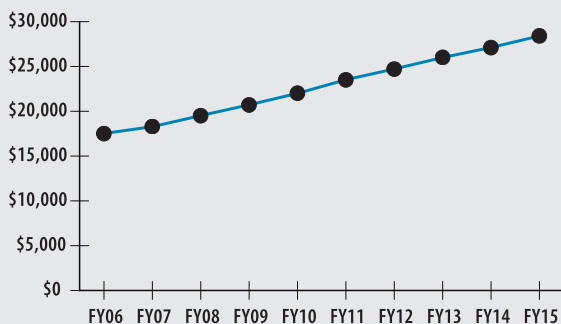
ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	158
▶ Number Who Reported Earnings	40
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$35,645.45

▶ 2014 Return	8.17%
▶ 2014 Market Value	\$303.5 M
▶ 2010-2014 (Annualized)	9.90%
▶ 1985-2014 (Annualized)	9.32%

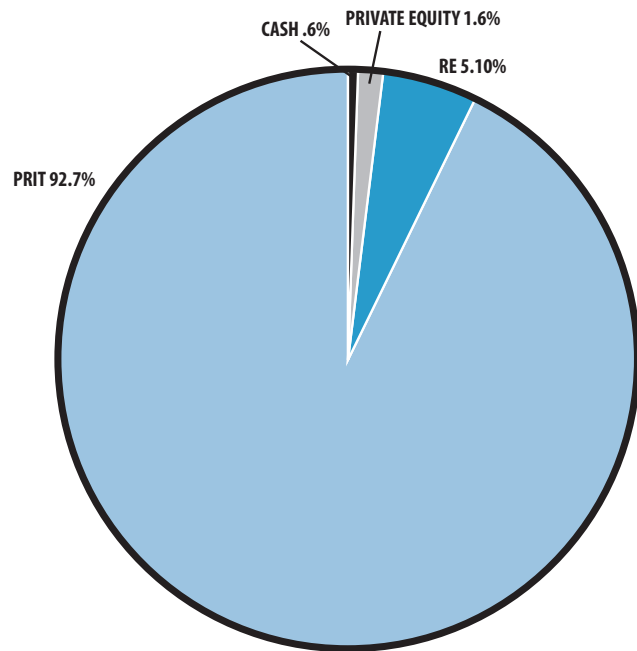
FUNDED RATIO (1987-2014)**INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)****10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)****INVESTMENT RETURN HISTORY**

30 years 2014 8.15%	29 years 2013 8.14%	28 years 2012 7.90%
10 years 2014 5.74%	10 years 2013 6.15%	10 years 2012 6.52%
5 years 2014 10.07%	5 years 2013 10.56%	5 years 2012 0.91%

ACTUARIAL

▶ Funded Ratio	41.9%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2033
▶ Unfunded Liability	\$307.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$28.4 M

	ACTIVE	RETIRED
▶ Number of Members	1,295	1,200
▶ Total Payroll/Benefit	\$69.8 M	\$31.2 M
▶ Average Salary/Benefit	\$53,900	\$26,000
▶ Average Age	50	75
▶ Average Service	15.4 years	NA

ASSET ALLOCATION (12/31/14)**EARNED INCOME OF DISABILITY RETIREES (2013)**

▶ Number of Disability Retirees	148
▶ Number Who Reported Earnings	31
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.46%
▶ 2014 Market Value	\$278.1 M
▶ 2010-2014 (Annualized)	10.07%
▶ 1985-2014 (Annualized)	8.15%

Malden

Government Center, Room 222
200 Pleasant Street
Malden, MA 02148
Phone 781-397-7086
Fax 781-397-7358

Board Members

Warren Atkinson, Jr. (Chairperson),
Joanne Croken, Douglas Eisnor,
Dominic Fermano, Charles Ranaghan

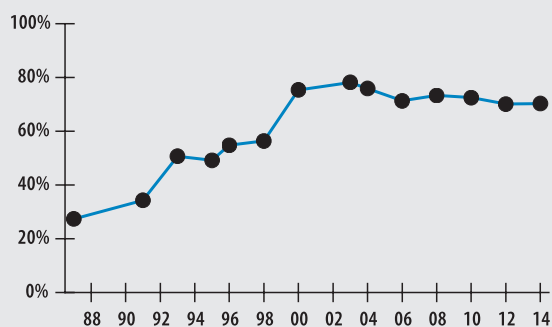
Board Administrator

James M. Ryan

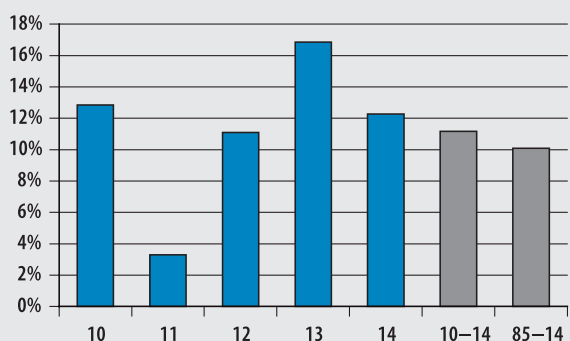
Board Meeting

Third Wednesday of each month

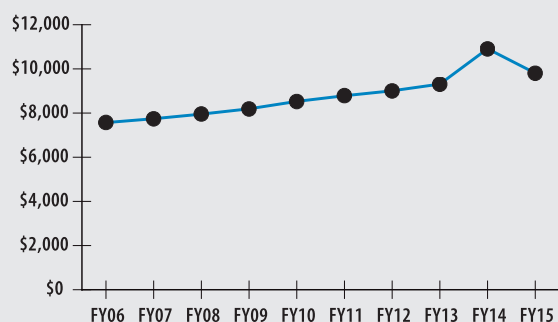
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

10.08%

29 years 2013

10.00%

28 years 2012

9.76%

10 years 2014

8.29%

10 years 2013

7.79%

10 years 2012

7.67%

5 years 2014

11.18%

5 years 2013

12.03%

5 years 2012

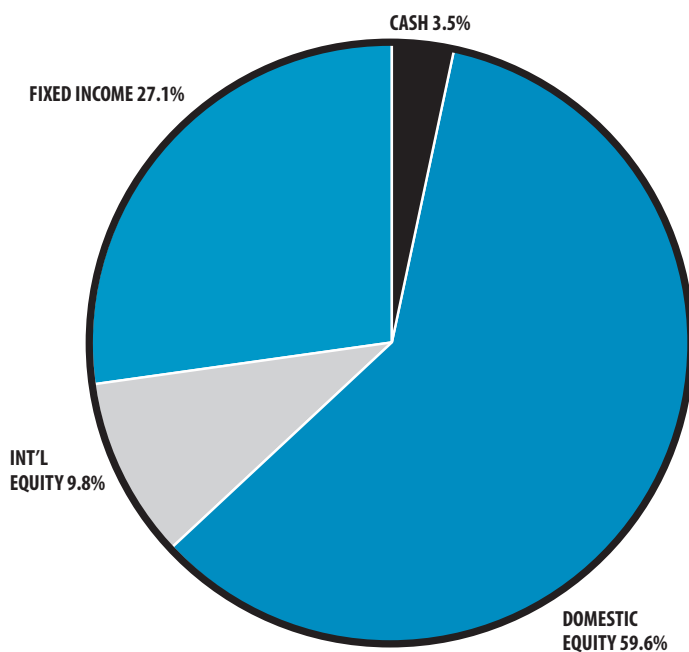
3.73%

ACTUARIAL

▶ Funded Ratio	70.3%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	2.3% Increasing Phase-in
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$83.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$9.8 M

	ACTIVE	RETIRED
▶ Number of Members	807	657
▶ Total Payroll/Benefit	\$40.0 M	\$16.4 M
▶ Average Salary/Benefit	\$49,500	\$24,900
▶ Average Age	48	74
▶ Average Service	13.1 years	NA

ASSET ALLOCATION (12/31/14)

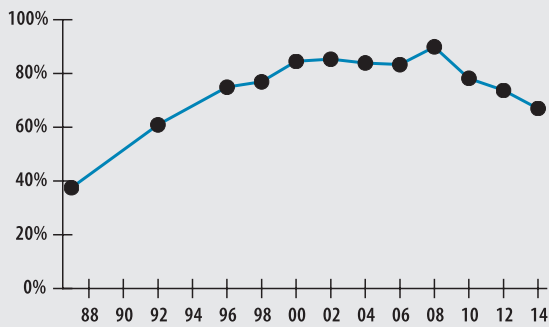


EARNED INCOME OF DISABILITY RETIREES (2013)

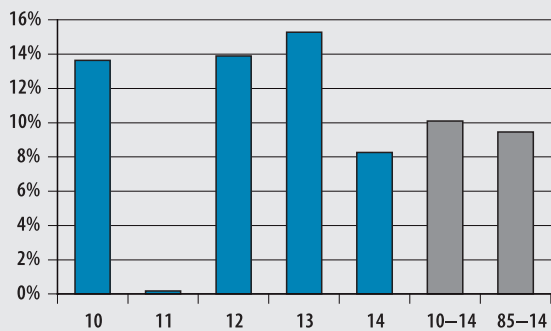
▶ Number of Disability Retirees	83
▶ Number Who Reported Earnings	27
▶ Number of Excess Earners	3
▶ Total Amount of Refund Due	\$5,504.58

▶ 2014 Return	12.27%
▶ 2014 Market Value	\$230.8 M
▶ 2010-2014 (Annualized)	11.18%
▶ 1985-2014 (Annualized)	10.08%

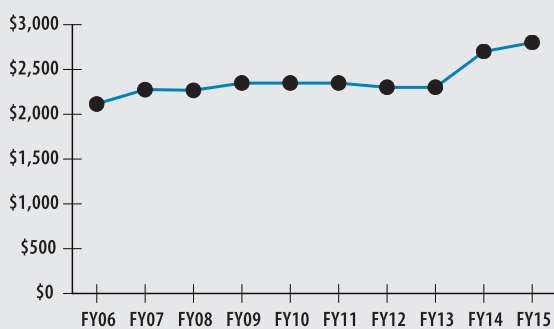
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

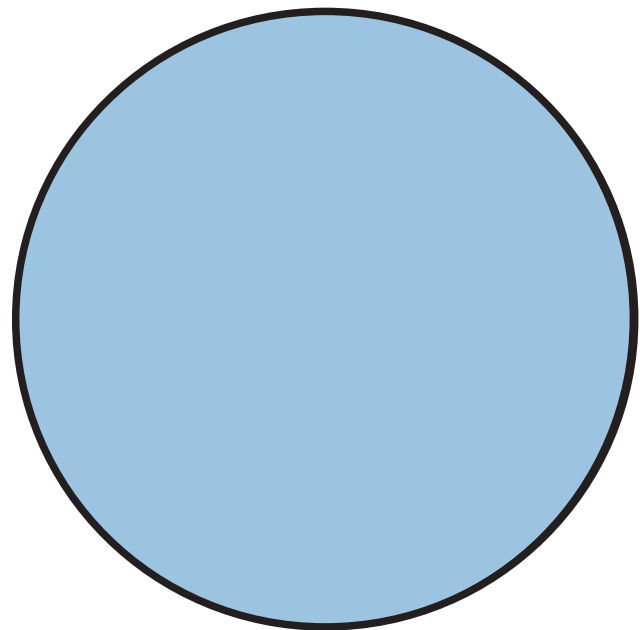
30 years 2014 9.45%	29 years 2013 9.49%	28 years 2012 9.29%
10 years 2014 7.10%	10 years 2013 7.70%	10 years 2012 8.70%
5 years 2014 10.11%	5 years 2013 11.98%	5 years 2012 1.51%

ACTUARIAL

▶ Funded Ratio	67.0%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	8.0% Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$40.3 M
▶ Total Pension Appropriation (Fiscal 2015)	\$2.8 M

	ACTIVE	RETIRED
▶ Number of Members	436	342
▶ Total Payroll/Benefit	\$18.8 M	\$7.9 M
▶ Average Salary/Benefit	\$43,200	\$23,100
▶ Average Age	48	74
▶ Average Service	10.0 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	18
▶ Number Who Reported Earnings	7
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.26%
▶ 2014 Market Value	\$89.9 M
▶ 2010-2014 (Annualized)	10.11%
▶ 1985-2014 (Annualized)	9.45%

Board Members

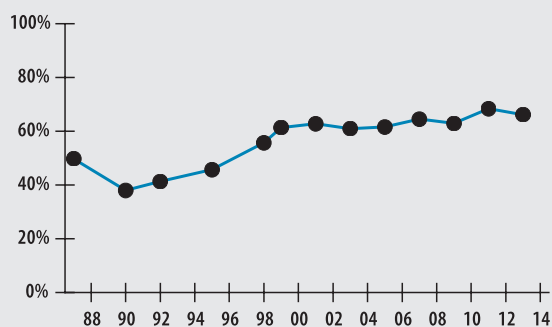
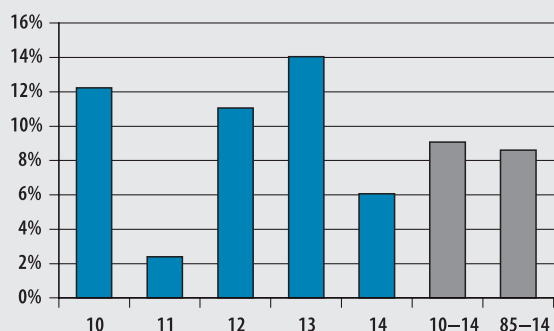
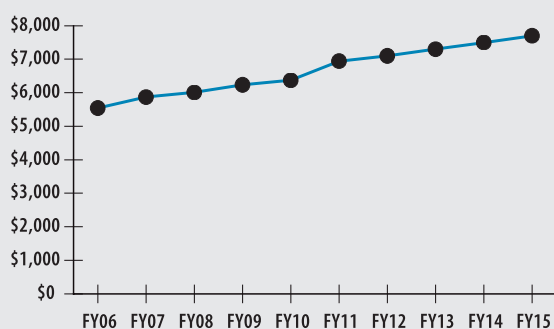
Gregory P. Brewster (Chairperson),
Thomas J. Abel, Christopher M. Sandini, Sr.,
Diane Smith, William S. Taylor

Board Administrator

Margaret R. Shea

Board Meeting

Varies

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

8.61%

29 years 2013

8.70%

28 years 2012

8.52%

10 years 2014

6.41%

10 years 2013

7.01%

10 years 2012

7.57%

5 years 2014

9.08%

5 years 2013

11.25%

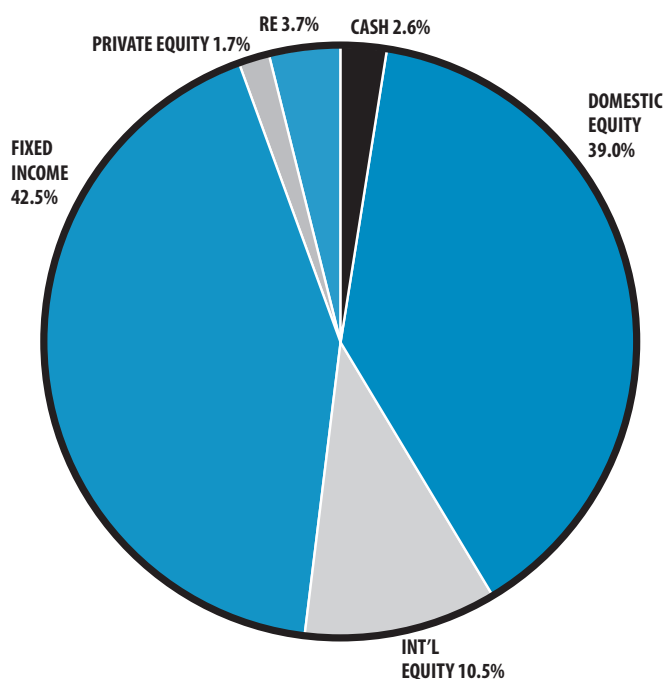
5 years 2012

3.50%

ACTUARIAL

▶ Funded Ratio	66.2%
▶ Date of Last Valuation	01/13
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	3.1% Increasing
▶ Year Fully Funded	2027
▶ Unfunded Liability	\$61.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$7.7 M

	ACTIVE	RETIRED
▶ Number of Members	689	357
▶ Total Payroll/Benefit	\$31.8 M	\$9.3 M
▶ Average Salary/Benefit	\$46,200	\$26,000
▶ Average Age	46	NA
▶ Average Service	11.5 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	28
▶ Number Who Reported Earnings	8
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$664.16

▶ 2014 Return	6.06%
▶ 2014 Market Value	\$144.7 M
▶ 2010-2014 (Annualized)	9.08%
▶ 1985-2014 (Annualized)	8.61%

Board Members

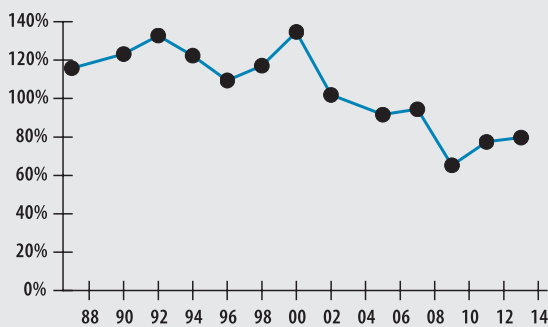
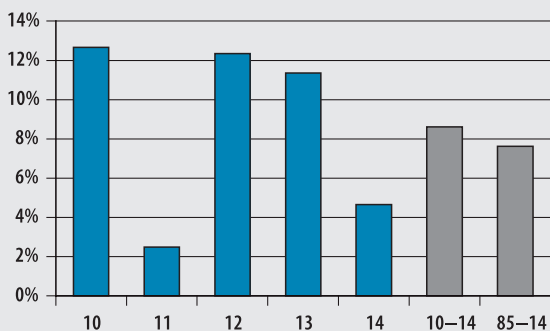
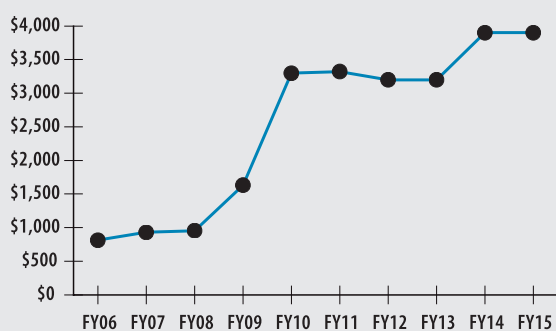
Andris Silins (Chairperson),
Michael Fitzmaurice, Ronald A. Homer,
Paul T. Hynes, Esq., Antonio Torres

Board Administrator

Joseph M. Petty

Board Meeting

Second Tuesday of each month at 1:30 pm

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

7.63%

29 years 2013

7.73%

28 years 2012

7.60%

10 years 2014

5.41%

10 years 2013

6.05%

10 years 2012

6.60%

5 years 2014

8.62%

5 years 2013

11.25%

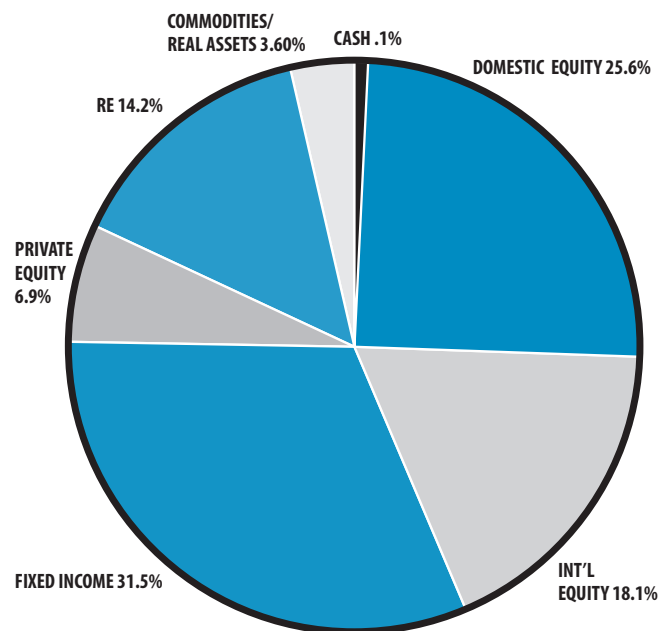
5 years 2012

2.89%

ACTUARIAL

▶ Funded Ratio	79.7%
▶ Date of Last Valuation	01/13
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	Level
▶ Year Fully Funded	2022
▶ Unfunded Liability	\$24.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.9 M

	ACTIVE	RETIRED
▶ Number of Members	328	117
▶ Total Payroll/Benefit	\$28.0 M	\$4.1 M
▶ Average Salary/Benefit	\$85,500	\$35,100
▶ Average Age	50	70
▶ Average Service	15.0 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	0
▶ Number Who Reported Earnings	0
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	4.66%
▶ 2014 Market Value	\$113.4 M
▶ 2010-2014 (Annualized)	8.62%
▶ 1985-2014 (Annualized)	7.63%

Board Members

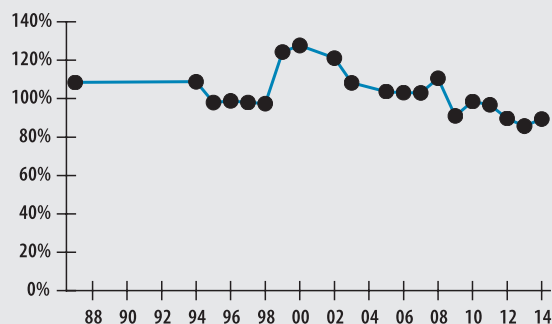
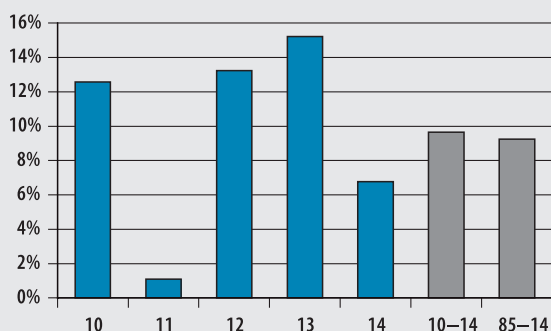
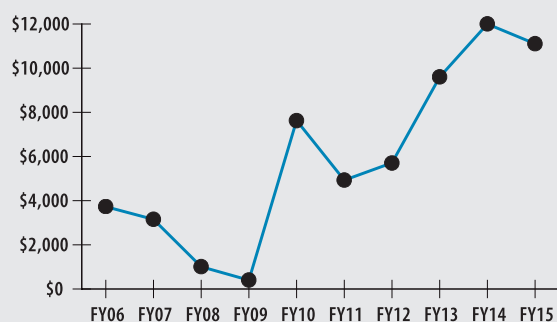
James Hoyte (Chairperson),
Michael A. Grieco, Philip H. Mallett,
John P. Pranckevicius, Betsy Taylor

Board Administrator

Irene E. Moran

Board Meeting

Last Thursday of the month

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

9.25%

29 years 2013

9.34%

28 years 2012

9.13%

10 years 2014

6.83%

10 years 2013

7.31%

10 years 2012

7.93%

5 years 2014

9.65%

5 years 2013

12.82%

5 years 2012

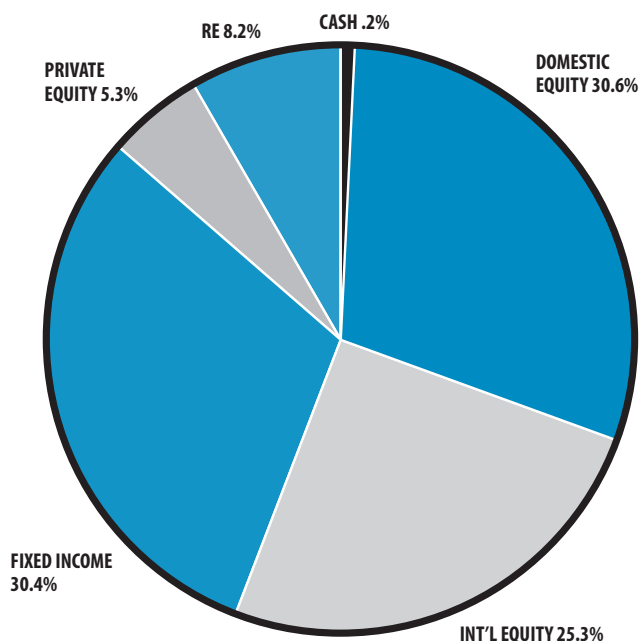
3.11%

ACTUARIAL

▶ Funded Ratio	89.4%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.63%
▶ Funding Schedule	Frozen entry age*
▶ Year Fully Funded	NA
▶ Unfunded Liability	\$57.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$11.1 M

	ACTIVE	RETIRED
▶ Number of Members	1,161	686
▶ Total Payroll/Benefit	\$91.0 M	\$23.9 M
▶ Average Salary/Benefit	\$78,400	\$34,800
▶ Average Age	48	69
▶ Average Service	14.6 years	NA

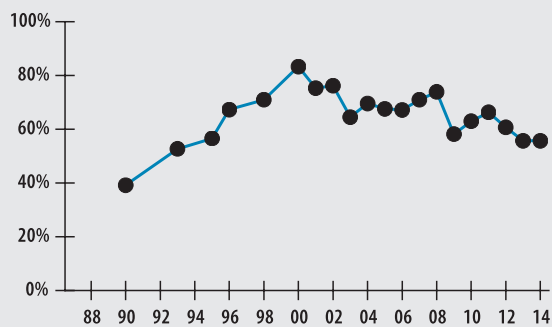
*by statute

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

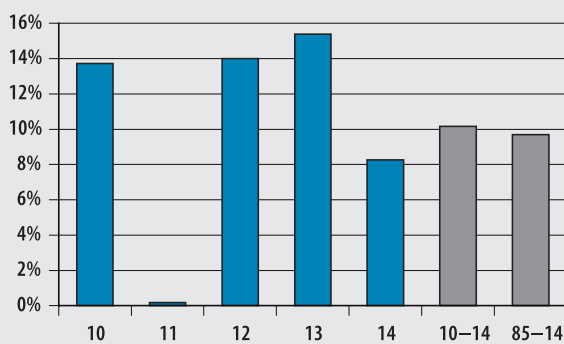
▶ Number of Disability Retirees	48
▶ Number Who Reported Earnings	14
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	6.78%
▶ 2014 Market Value	\$537.2 M
▶ 2010-2014 (Annualized)	9.65%
▶ 1985-2014 (Annualized)	9.25%

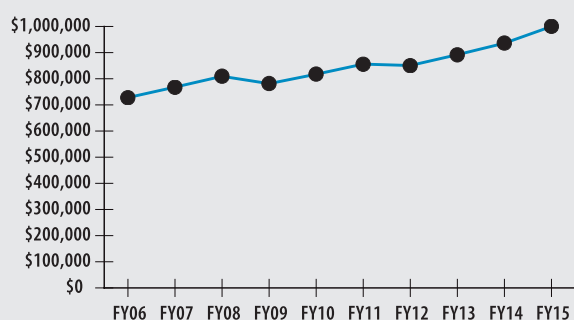
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.70%

29 years 2013
9.75%

28 years 2012
9.55%

10 years 2014
7.12%

10 years 2013
7.72%

10 years 2012
8.71%

5 years 2014
10.16%

5 years 2013
12.05%

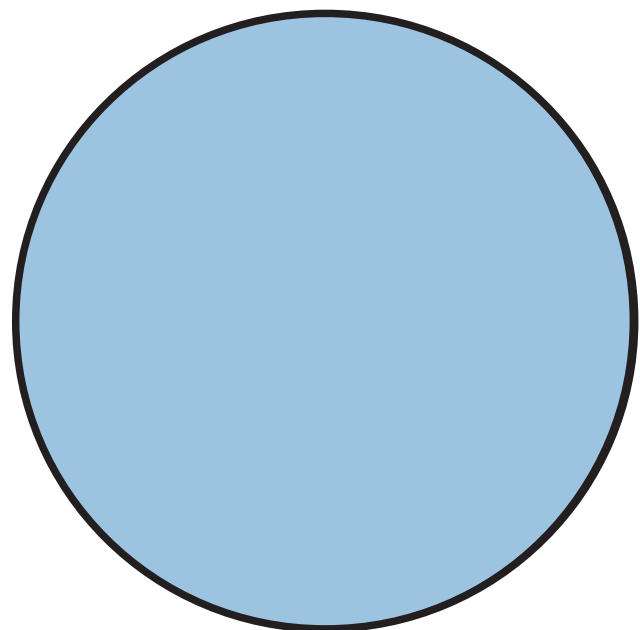
5 years 2012
1.52%

ACTUARIAL

▶ Funded Ratio	56.3%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$17.8 B
▶ Total Pension Appropriation (Fiscal 2015)	\$1.0 B

	ACTIVE	RETIRED
▶ Number of Members	88,788	61,034
▶ Total Payroll/Benefit	\$6.0 B	\$2.5 B
▶ Average Salary/Benefit	\$67,200	\$41,000
▶ Average Age	44	71
▶ Average Service	12.9 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	601
▶ Number Who Reported Earnings	129
▶ Number of Excess Earners	2
▶ Total Amount of Refund Due	\$23,510.41

▶ 2014 Return	8.26%
▶ 2014 Market Value	\$25.0 B
▶ 2010-2014 (Annualized)	10.16%
▶ 1985-2014 (Annualized)	9.70%

Board Members

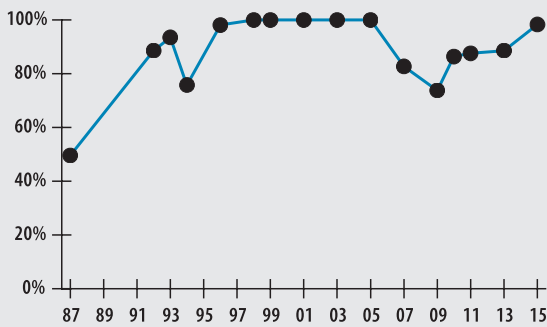
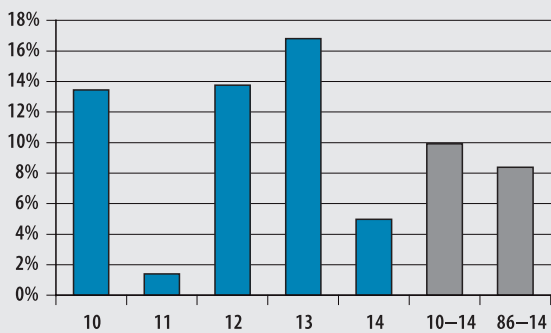
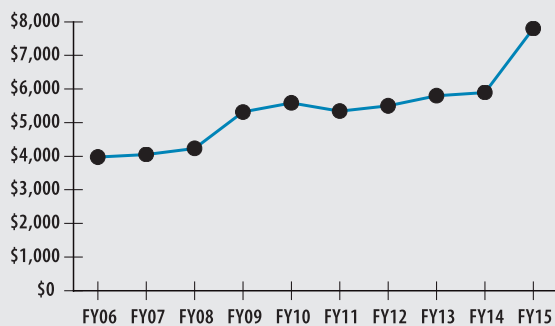
James M. Fleming, Esq. (Chairperson),
Thomas J. Durkin, Joseph C. Foti,
Kevin McKenna, Frank Zecha

Board Administrator

Julie T. McManus

Board Meeting

Last Thursday of the month,
unless otherwise posted

FUNDED RATIO (1987-2015)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 29 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
29 years 2014

8.38%

28 years 2013

8.51%

27 years 2012

8.21%

10 years 2014

7.43%

10 years 2013

8.01%

10 years 2012

8.70%

5 years 2014

9.92%

5 years 2013

13.38%

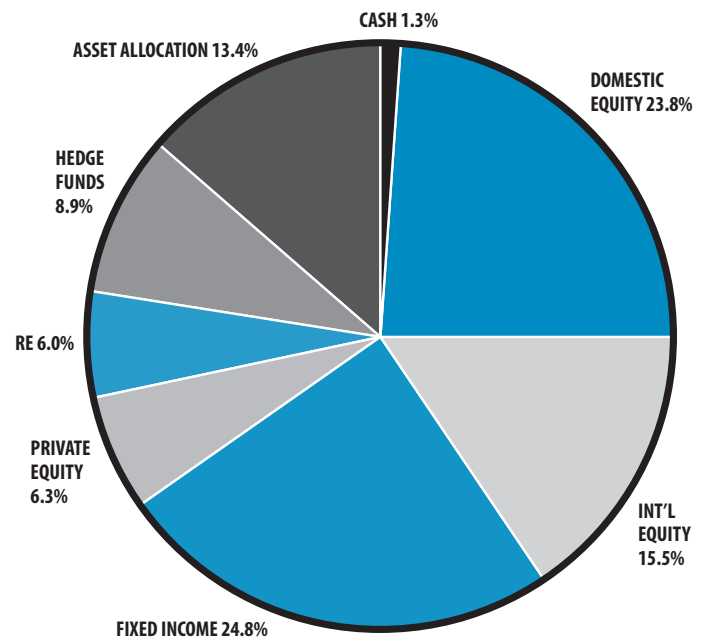
5 years 2012

4.51%

ACTUARIAL

▶ Funded Ratio	98.3%
▶ Date of Last Valuation	01/15
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.5% Increasing
▶ Year Fully Funded	2024
▶ Unfunded Liability	\$7.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$7.8 M

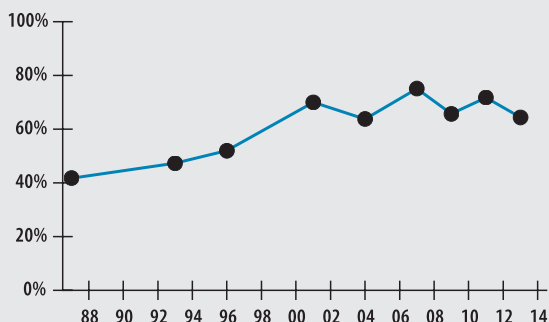
	ACTIVE	RETIRED
▶ Number of Members	1,090	476
▶ Total Payroll/Benefit	\$85.5 M	\$14.6 M
▶ Average Salary/Benefit	\$78,500	\$30,600
▶ Average Age	52	NA
▶ Average Service	18.2 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

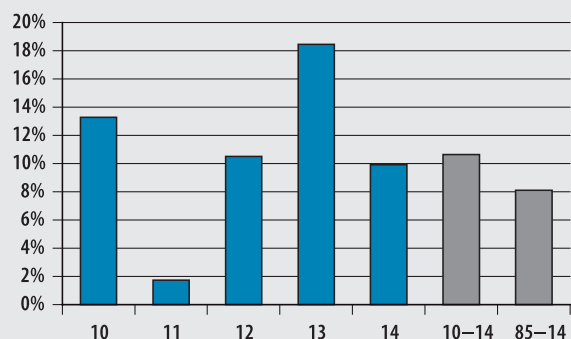
▶ Number of Disability Retirees	57
▶ Number Who Reported Earnings	13
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$4,291.44

▶ 2014 Return	4.97%
▶ 2014 Market Value	\$442.1 M
▶ 2010-2014 (Annualized)	9.92%
▶ 1986-2014 (Annualized)	8.38%

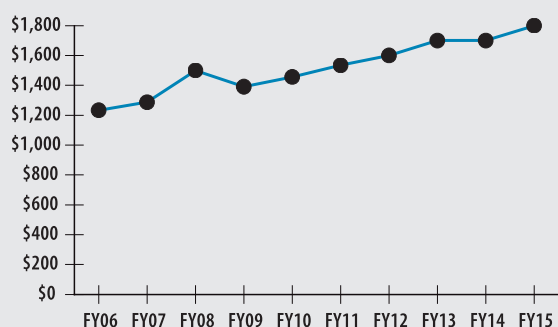
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

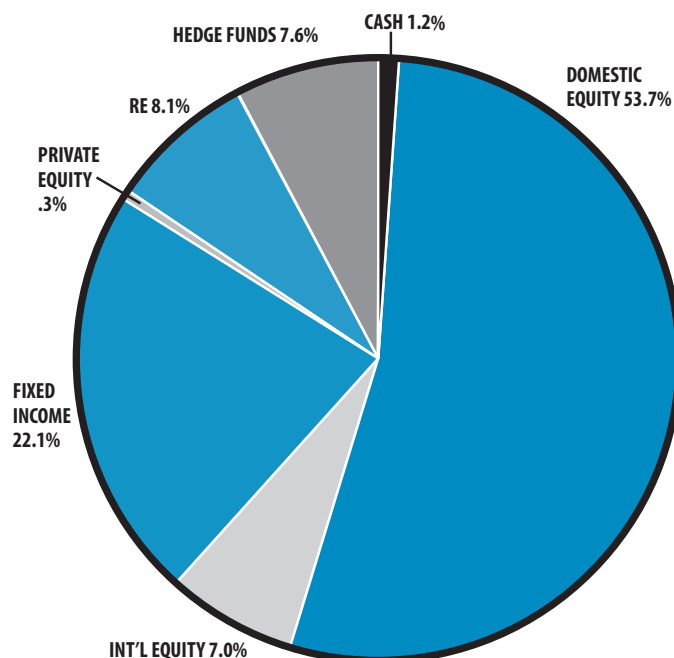
30 years 2014 8.11%	29 years 2013 8.05%	28 years 2012 7.70%
10 years 2014 6.23%	10 years 2013 6.31%	10 years 2012 6.41%
5 years 2014 10.65%	5 years 2013 12.05%	5 years 2012 1.75%

ACTUARIAL

▶ Funded Ratio	64.4%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	6.0% Total Increasing
▶ Year Fully Funded	2031
▶ Unfunded Liability	\$15.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$1.8 M

	ACTIVE	RETIRED
▶ Number of Members	186	98
▶ Total Payroll/Benefit	\$7.9 M	\$2.3 M
▶ Average Salary/Benefit	\$42,600	\$23,800
▶ Average Age	48	72
▶ Average Service	10.8 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	7
▶ Number Who Reported Earnings	5
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	9.93%
▶ 2014 Market Value	\$37.0 M
▶ 2010-2014 (Annualized)	10.65%
▶ 1985-2014 (Annualized)	8.11%

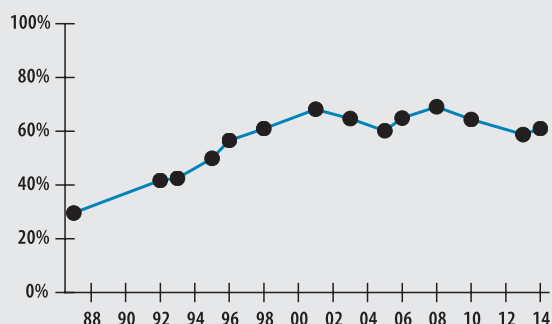
Medford

City Hall
Room 215
Medford, MA 02155
Phone 781-393-2517
Fax 781-393-2522

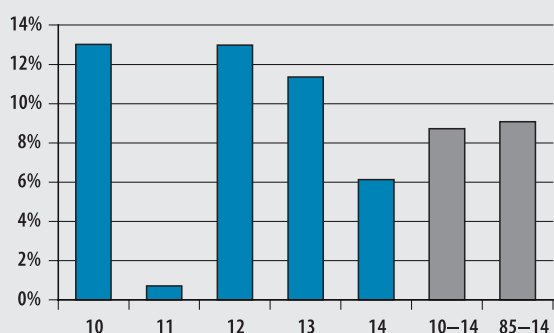
Board Members
Rick Jordan (Chairperson),
Anne C. Baker, Patrick Ripley, James Vieira

Board Administrator
Tina Rapatano
Board Meeting
Varies

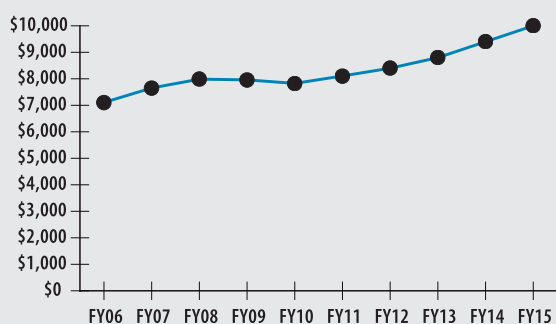
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.08%

29 years 2013
9.19%

28 years 2012
9.11%

10 years 2014
6.43%

10 years 2013
7.00%

10 years 2012
7.85%

5 years 2014
8.73%

5 years 2013
11.81%

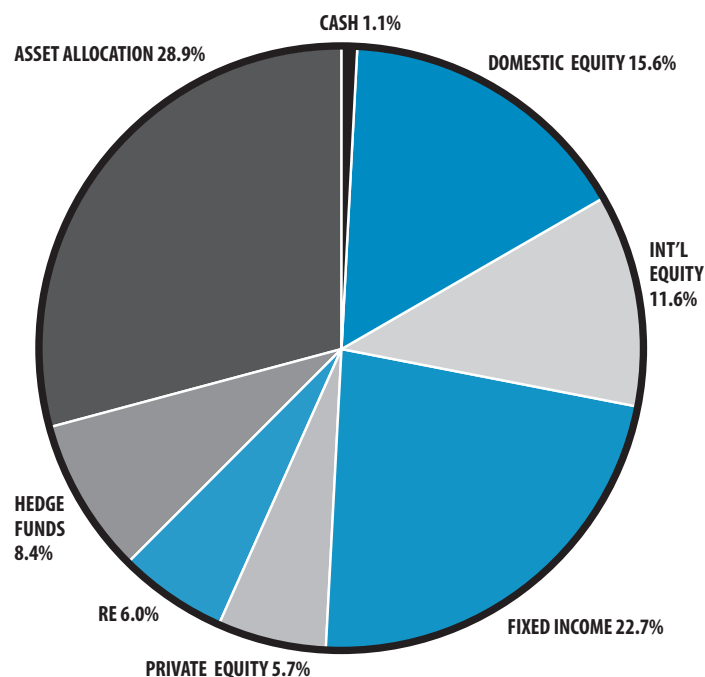
5 years 2012
4.00%

ACTUARIAL

▶ Funded Ratio	61.0%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	7.50%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$104.8 M
▶ Total Pension Appropriation (Fiscal 2015)	\$10.0 M

	ACTIVE	RETIRED
▶ Number of Members	698	577
▶ Total Payroll/Benefit	\$37.9 M	\$15.6 M
▶ Average Salary/Benefit	\$54,200	\$27,000
▶ Average Age	NA	76
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	92
▶ Number Who Reported Earnings	13
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$5,181.66

▶ 2014 Return	6.13%
▶ 2014 Market Value	\$175.5 M
▶ 2010-2014 (Annualized)	8.73%
▶ 1985-2014 (Annualized)	9.08%

Melrose

City Hall
562 Main Street
Melrose, MA 02176
Phone 781-979-4151
Fax 781-979-4206

Board Members

Patrick D. Dello Russo (Chairperson),
Scott Colborne, Michael Lindstrom,
Michael L. Lyle, Richard E. Pitts

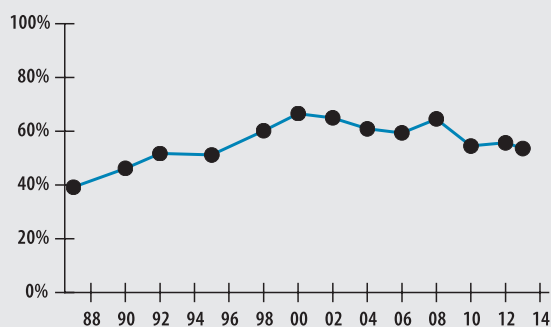
Board Director

Adam Travinski

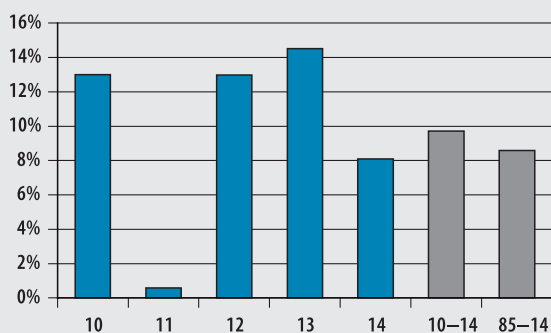
Board Meeting

Usually the last Wednesday of each month

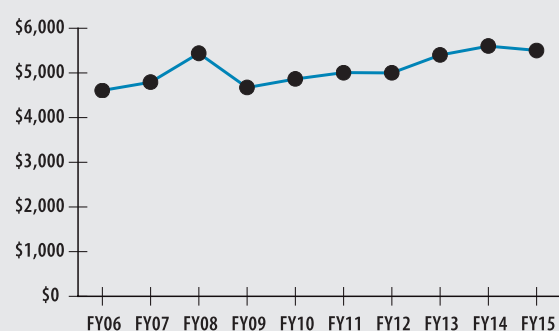
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.58%

29 years 2013
8.59%

28 years 2012
8.39%

10 years 2014
6.23%

10 years 2013
6.43%

10 years 2012
6.76%

5 years 2014
9.71%

5 years 2013
10.93%

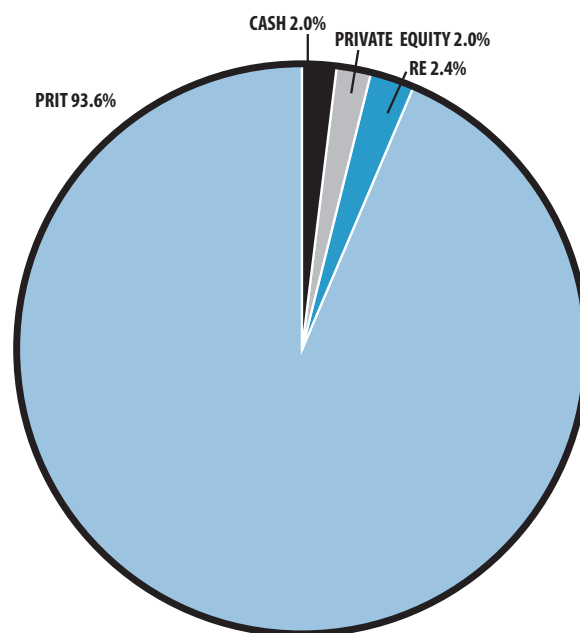
5 years 2012
1.43%

ACTUARIAL

▶ Funded Ratio	53.6%
▶ Date of Last Valuation	01/13
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	2.37% Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$53.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.5 M

	ACTIVE	RETIRED
▶ Number of Members	427	373
▶ Total Payroll/Benefit	\$17.9 M	\$7.9 M
▶ Average Salary/Benefit	\$41,900	\$21,300
▶ Average Age	49	74
▶ Average Service	10.8 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	33
▶ Number Who Reported Earnings	13
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.10%
▶ 2014 Market Value	\$73.5 M
▶ 2010-2014 (Annualized)	9.71%
▶ 1985-2014 (Annualized)	8.58%

Methuen

41 Pleasant Street
Suite 303
Methuen, MA 01844
Phone 978-983-8620
Fax 978-983-8972

Board Members

Thomas J. Kelly (Chairperson),
Michael Hennessy, Robert Sheehan,
John T. Sheehy, Albert J. Trott, III

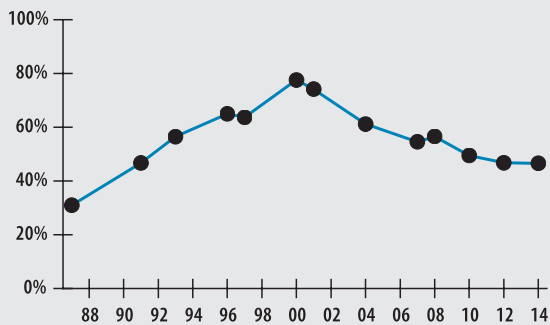
Board Administrator

Krysten Wallace

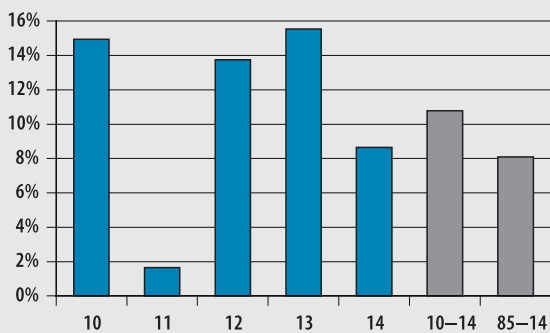
Board Meeting

Last Thursday of each month at 9:30 am

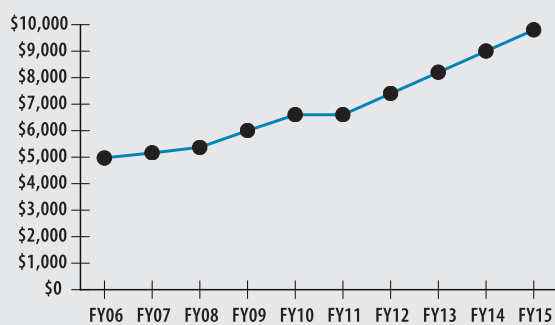
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.10%

29 years 2013
8.08%

28 years 2012
7.83%

10 years 2014
5.56%

10 years 2013
5.58%

10 years 2012
6.10%

5 years 2014
10.78%

5 years 2013
11.34%

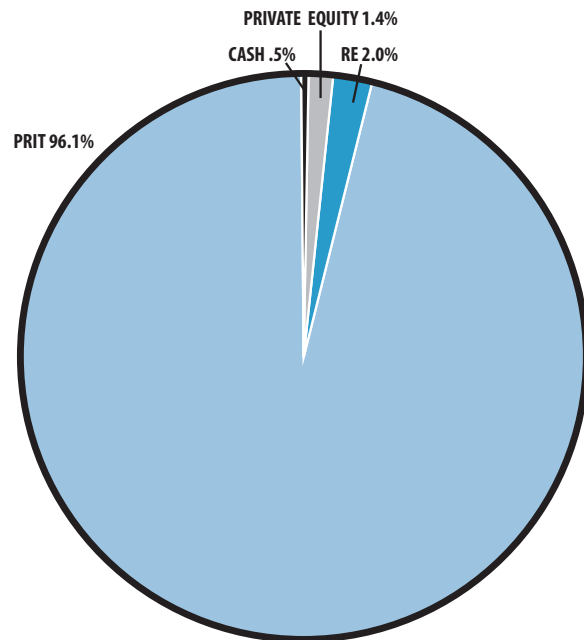
5 years 2012
1.79%

ACTUARIAL

▶ Funded Ratio	46.6%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$112.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$9.8 M

	ACTIVE	RETIRED
▶ Number of Members	616	420
▶ Total Payroll/Benefit	\$32.3 M	\$10.9 M
▶ Average Salary/Benefit	\$52,400	\$26,000
▶ Average Age	47	72
▶ Average Service	14.1 years	NA

ASSET ALLOCATION (12/31/14)

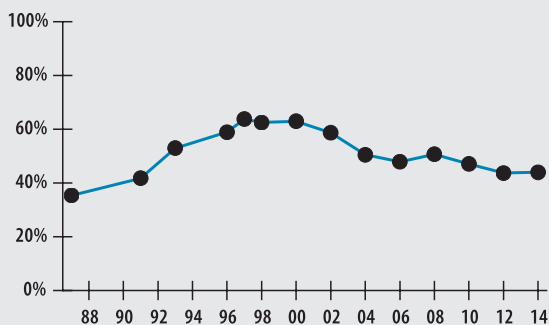


EARNED INCOME OF DISABILITY RETIREES (2013)

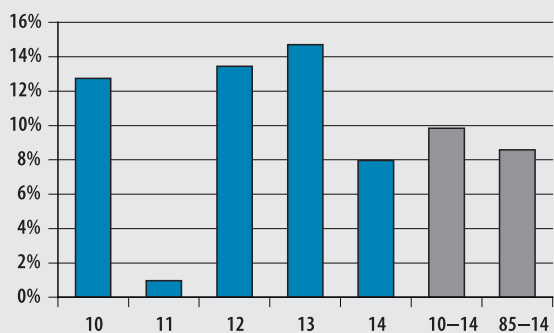
▶ Number of Disability Retirees	48
▶ Number Who Reported Earnings	12
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.66%
▶ 2014 Market Value	\$115.0 M
▶ 2010-2014 (Annualized)	10.78%
▶ 1985-2014 (Annualized)	8.10%

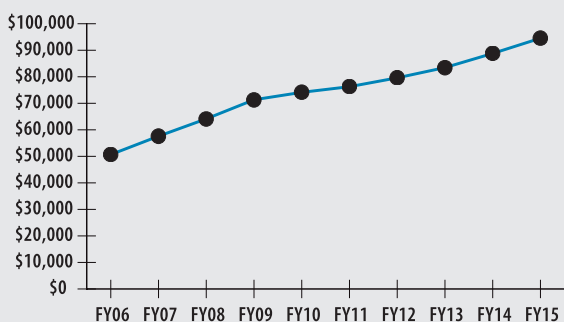
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.58%

29 years 2013
8.60%

28 years 2012
8.39%

10 years 2014
6.28%

10 years 2013
6.58%

10 years 2012
6.24%

5 years 2014
9.85%

5 years 2013
10.82%

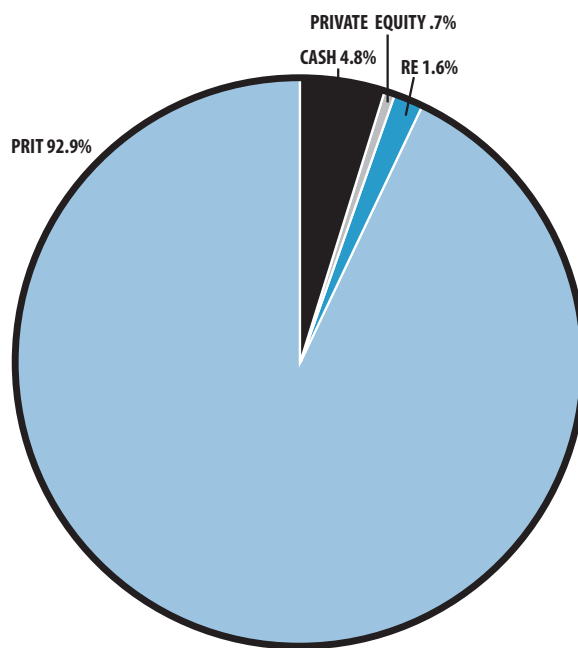
5 years 2012
1.93%

ACTUARIAL

▶ Funded Ratio	44.0%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2035
▶ Unfunded Liability	\$1.2 B
▶ Total Pension Appropriation (Fiscal 2015)	\$94.5 M

	ACTIVE	RETIRED
▶ Number of Members	9,082	5,077
▶ Total Payroll/Benefit	\$415.8 M	\$114.8 M
▶ Average Salary/Benefit	\$45,800	\$22,600
▶ Average Age	48	NA
▶ Average Service	11.7 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	367
▶ Number Who Reported Earnings	119
▶ Number of Excess Earners	4
▶ Total Amount of Refund Due	\$30,497.18

▶ 2014 Return	7.96%
▶ 2014 Market Value	\$1.1 B
▶ 2010-2014 (Annualized)	9.85%
▶ 1985-2014 (Annualized)	8.58%

Board Members

Zachary A. Taylor (Chairperson),
Linda P. DeDominick, Michael A. Diorio, C.P.A.
Gerald Hennessy, Ernest Pettinari, Esq.

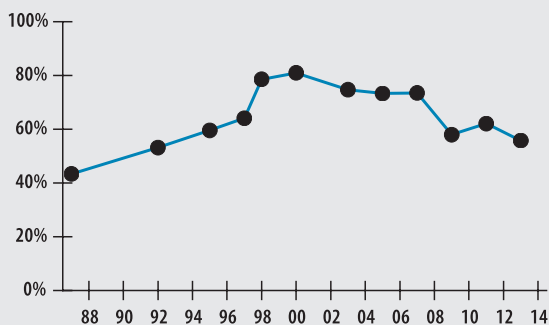
Board Administrator

Alberta J. Farley

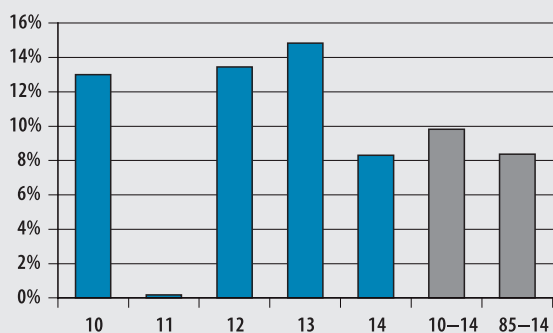
Board Meeting

Third Tuesday of each month at 1:00 pm

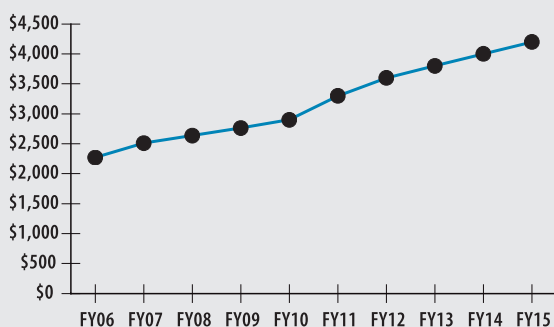
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.37%

29 years 2013
8.37%

28 years 2012
8.15%

10 years 2014
5.27%

10 years 2013
5.61%

10 years 2012
6.11%

5 years 2014
9.82%

5 years 2013
11.56%

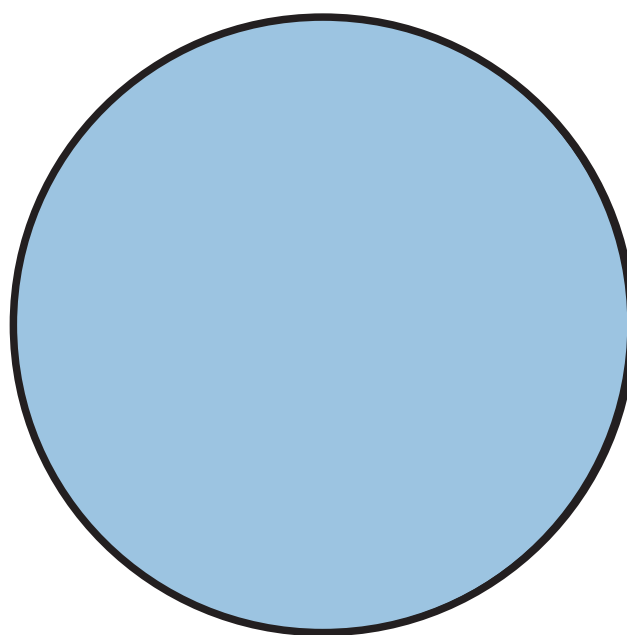
5 years 2012
0.52%

ACTUARIAL

▶ Funded Ratio	55.8%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	5.5% Total Increasing
▶ Year Fully Funded	2037
▶ Unfunded Liability	\$48.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$4.2 M

	ACTIVE	RETIRED
▶ Number of Members	451	271
▶ Total Payroll/Benefit	\$18.7 M	\$5.3 M
▶ Average Salary/Benefit	\$41,400	\$19,600
▶ Average Age	50	74
▶ Average Service	13.5 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	22
▶ Number Who Reported Earnings	10
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$6,214.60

▶ 2014 Return	8.30%
▶ 2014 Market Value	\$76.1 M
▶ 2010-2014 (Annualized)	9.82%
▶ 1985-2014 (Annualized)	8.37%

Milton

525 Canton Avenue
Milton, MA 02186
Phone 617-898-4887
Fax 617-698-1540

Board Members

Kevin J. Cleary (Chairperson),
Robert J. Byron, Amy Dexter, John E. King,
Richard J. Madigan

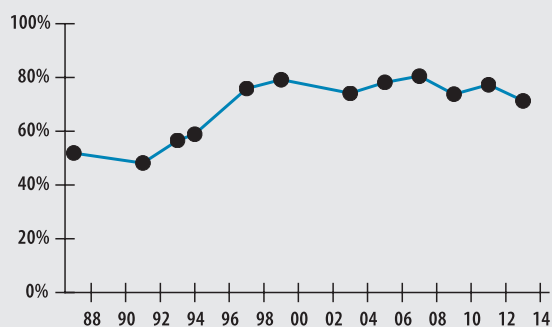
Board Administrator

Kevin J. Cleary

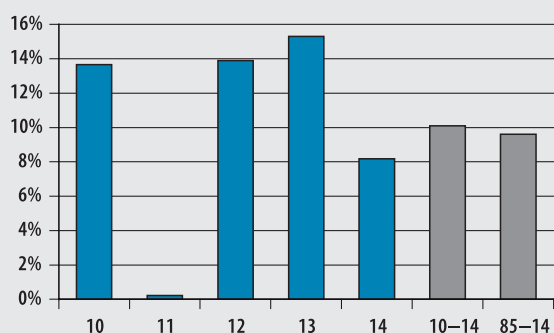
Board Meeting

Last Thursday of each month at 3:30 pm

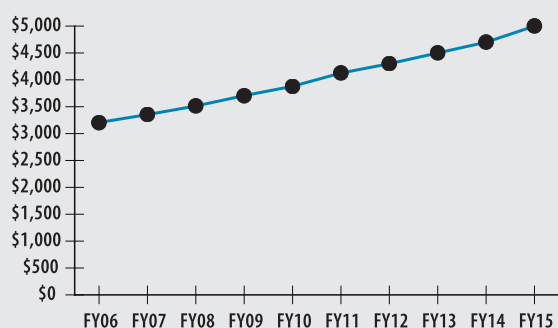
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.61%

29 years 2013

9.66%

28 years 2012

9.46%

10 years 2014

6.90%

10 years 2013

7.45%

10 years 2012

8.37%

5 years 2014

10.11%

5 years 2013

12.00%

5 years 2012

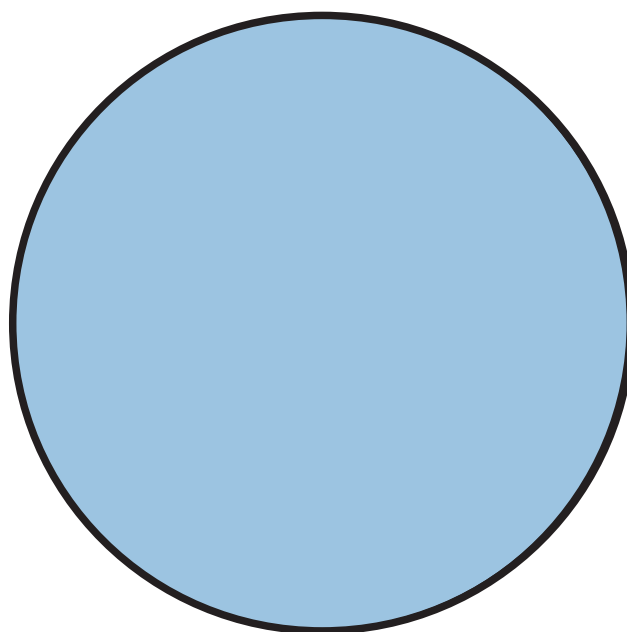
1.58%

ACTUARIAL

▶ Funded Ratio	71.3%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	6.0% Total Increasing
▶ Year Fully Funded	2025
▶ Unfunded Liability	\$35.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.0 M

	ACTIVE	RETIRED
▶ Number of Members	353	266
▶ Total Payroll/Benefit	\$19.2 M	\$7.0 M
▶ Average Salary/Benefit	\$54,300	\$26,400
▶ Average Age	47	74
▶ Average Service	12.5 years	NA

ASSET ALLOCATION (12/31/14)



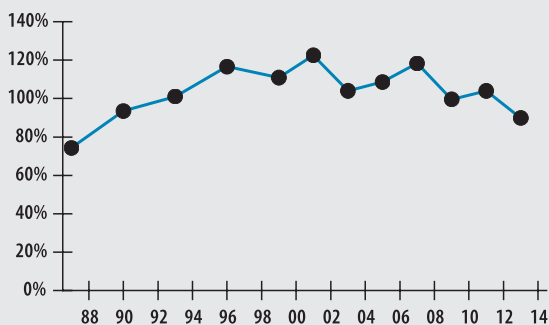
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

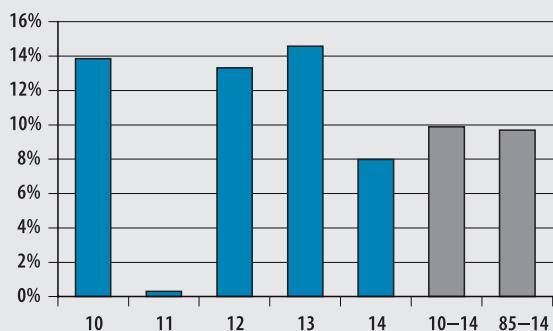
▶ Number of Disability Retirees	34
▶ Number Who Reported Earnings	6
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.19%
▶ 2014 Market Value	\$108.5 M
▶ 2010-2014 (Annualized)	10.11%
▶ 1985-2014 (Annualized)	9.61%

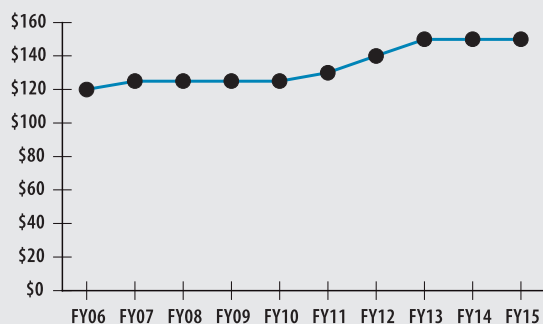
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

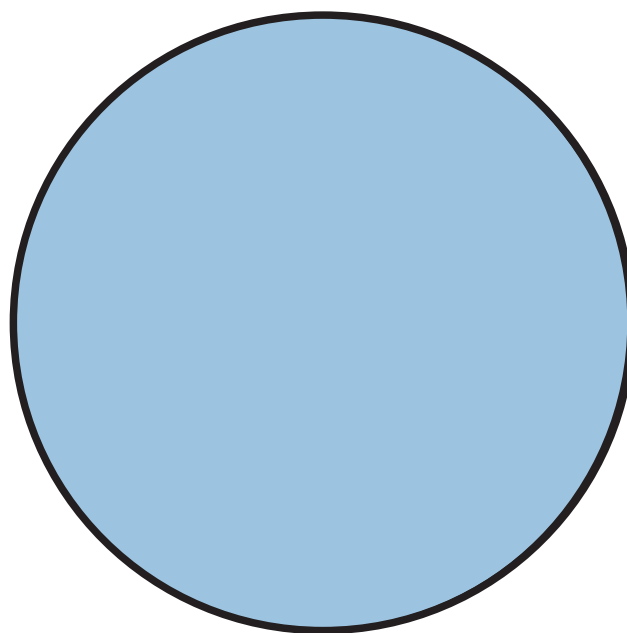
30 years 2014 9.70%	29 years 2013 9.76%	28 years 2012 9.59%
10 years 2014 6.97%	10 years 2013 7.60%	10 years 2012 8.68%
5 years 2014 9.88%	5 years 2013 11.79%	5 years 2012 1.39%

ACTUARIAL

▶ Funded Ratio	89.9%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	Level dollar
▶ Year Fully Funded	NA
▶ Unfunded Liability	\$1.3 M
▶ Total Pension Appropriation (Fiscal 2015)	\$150,000

	ACTIVE	RETIRED
▶ Number of Members	50	39
▶ Total Payroll/Benefit	\$2.3 M	\$853,000
▶ Average Salary/Benefit	\$46,800	\$21,900
▶ Average Age	47	74
▶ Average Service	9.1 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	2
▶ Number Who Reported Earnings	0
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	7.99%
▶ 2014 Market Value	\$13.1 M
▶ 2010-2014 (Annualized)	9.88%
▶ 1985-2014 (Annualized)	9.70%

Montague

One Avenue A
Turners Falls, MA 01376
Phone 413-863-3200
Fax 413-863-3224

Board Members

David R. Dion (Chairperson),
Frank Abbondanzio, Cheryl Clark,
Marianne Fiske, Carolyn S. Olsen

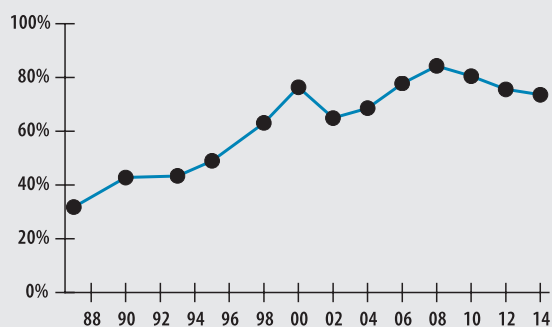
Board Administrator

Shari Hildreth

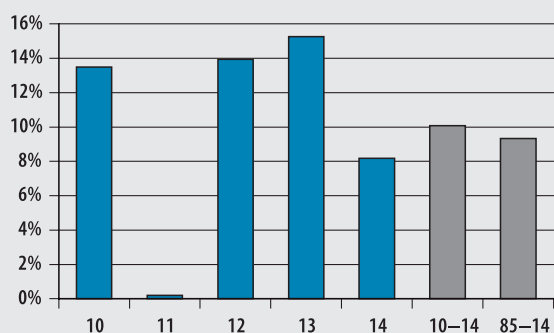
Board Meeting

Usually the fourth Tuesday of each
month at 1:00 pm

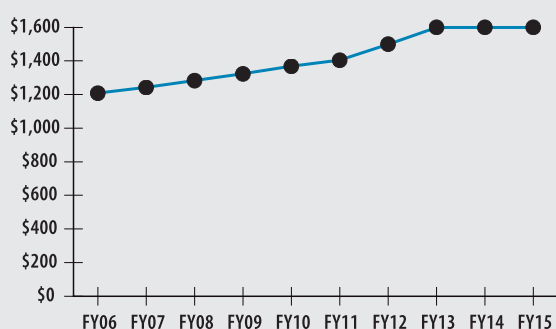
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.34%

29 years 2013

9.38%

28 years 2012

9.18%

10 years 2014

7.06%

10 years 2013

7.67%

10 years 2012

8.66%

5 years 2014

10.07%

5 years 2013

11.90%

5 years 2012

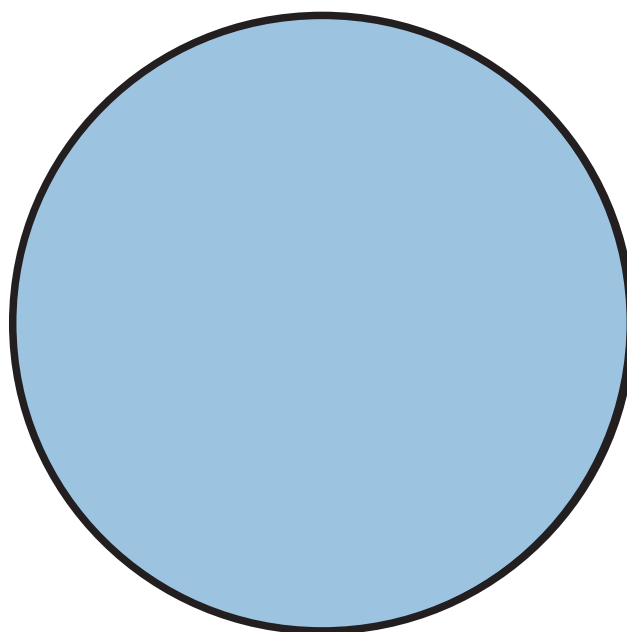
1.46%

ACTUARIAL

▶ Funded Ratio	73.6%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	2.5% Total Increasing
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$10.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$1.6 M

	ACTIVE	RETIRED
▶ Number of Members	195	121
▶ Total Payroll/Benefit	\$6.4 M	\$2.1 M
▶ Average Salary/Benefit	\$33,000	\$17,600
▶ Average Age	49	72
▶ Average Service	11.9 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	13
▶ Number Who Reported Earnings	2
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$1,538.54

▶ 2014 Return	8.17%
▶ 2014 Market Value	\$34.4 M
▶ 2010-2014 (Annualized)	10.07%
▶ 1985-2014 (Annualized)	9.34%

Board Members

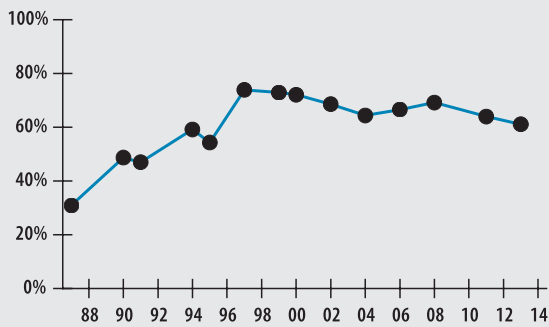
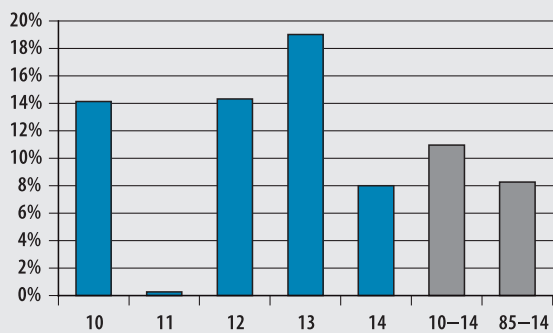
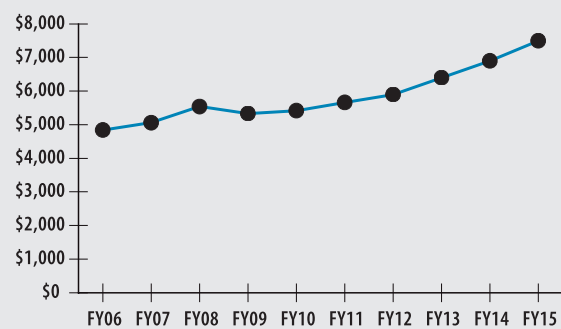
Robert J. Drew (Chairperson),
Virginia Cahill, David Given,
Michael J. Melchiorri, B. Michael Reardon

Board Administrator

Kathleen S. Bacon

Board Meeting

Usually the last Wednesday of each month

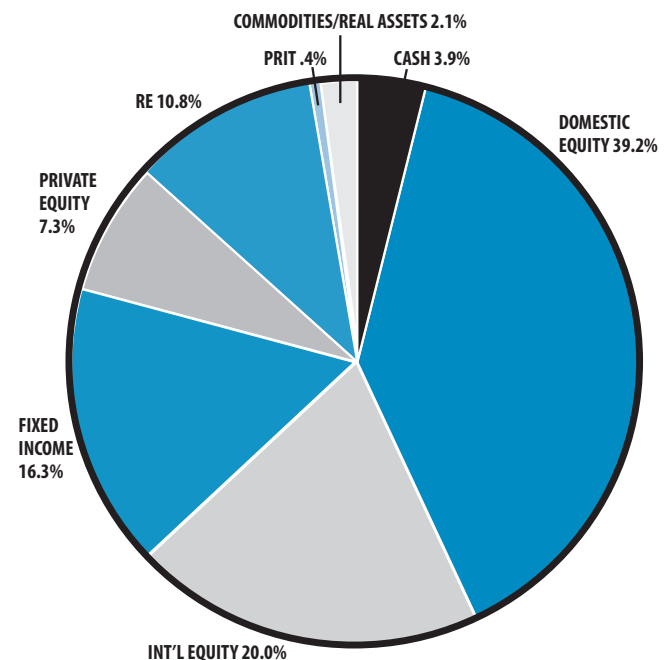
FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY

30 years 2014 8.28%	29 years 2013 8.28%	28 years 2012 7.92%
10 years 2014 5.74%	10 years 2013 5.67%	10 years 2012 5.59%
5 years 2014 10.96%	5 years 2013 13.09%	5 years 2012 1.13%

ACTUARIAL

▶ Funded Ratio	61.1%
▶ Date of Last Valuation	01/13
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$65.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$7.5 M

	ACTIVE	RETIRED
▶ Number of Members	591	375
▶ Total Payroll/Benefit	\$32.2 M	\$9.1 M
▶ Average Salary/Benefit	\$54,500	\$24,400
▶ Average Age	47	NA
▶ Average Service	12.3 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	19
▶ Number Who Reported Earnings	7
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.01%
▶ 2014 Market Value	\$112.5 M
▶ 2010-2014 (Annualized)	10.96%
▶ 1985-2014 (Annualized)	8.28%

Needham

Town Hall
1471 Highland Avenue
Needham, MA 02492-2605
Phone 781-455-7500, Ext. 231
Fax 781-449-4569

Board Members

Evelyn M. Poness (Chairperson),
Elizabeth Dennis, John P. Krawiecki,
Robert P. Mearls, Thomas A. Welch II

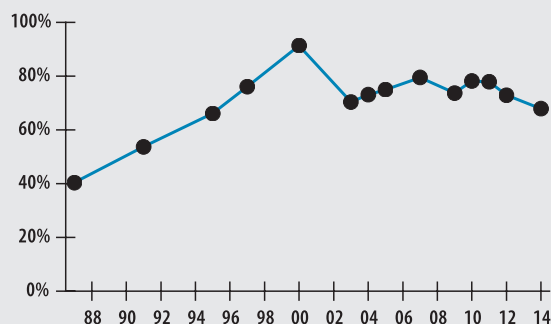
Board Administrator

Juanita Hearn

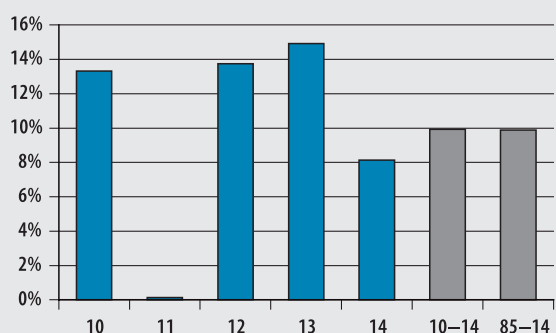
Board Meeting

Usually second Wednesday of each
month at 9:00 am

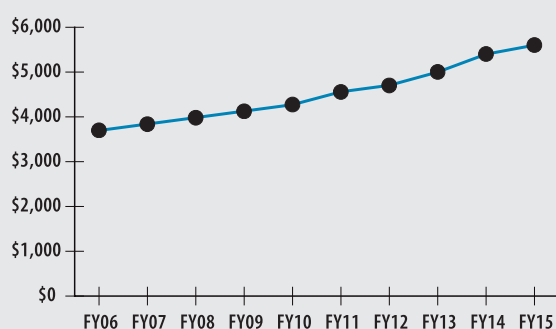
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.89%

29 years 2013

9.95%

28 years 2012

9.78%

10 years 2014

6.99%

10 years 2013

7.57%

10 years 2012

8.56%

5 years 2014

9.92%

5 years 2013

11.68%

5 years 2012

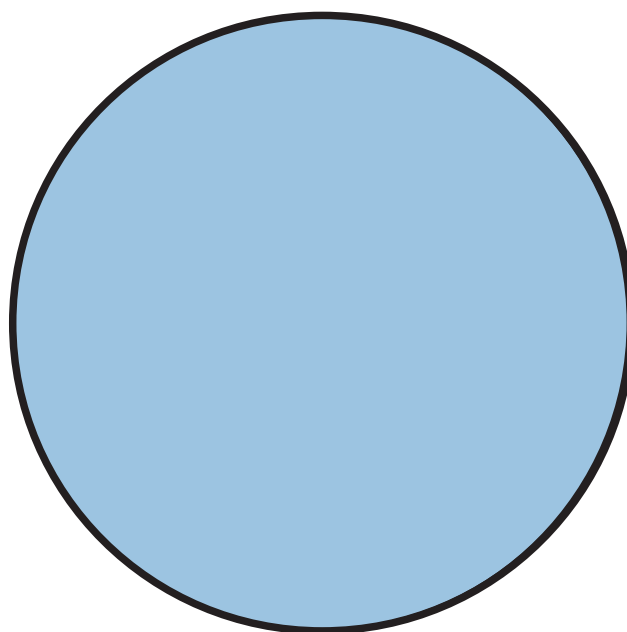
1.43%

ACTUARIAL

▶ Funded Ratio	67.9%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.5% Increasing Phase-in
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$57.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.6 M

	ACTIVE	RETIRED
▶ Number of Members	631	464
▶ Total Payroll/Benefit	\$32.6 M	\$10.0 M
▶ Average Salary/Benefit	\$51,700	\$21,600
▶ Average Age	49	NA
▶ Average Service	11.6 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	24
▶ Number Who Reported Earnings	6
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.14%
▶ 2014 Market Value	\$135.9 M
▶ 2010-2014 (Annualized)	9.92%
▶ 1985-2014 (Annualized)	9.89%

New Bedford

651 Orchard Street, #203A
New Bedford, MA 02744-1008
Phone 508-979-1538
Fax 508-979-1799

Board Members

Arthur J. Caron, Jr., Esq. (Chairperson),
Robert W. Ekstrom, Paul M. Lestage,
Susan Mandra Thompson,
Edward J. Wiley

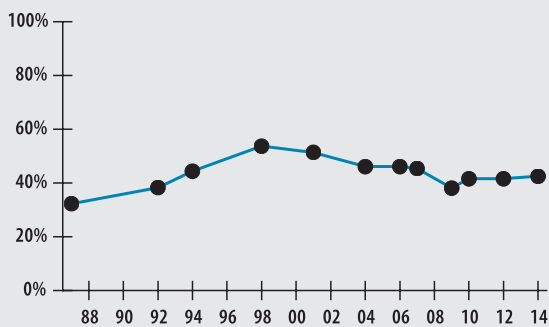
Board Administrator

Gerard Arnaudet

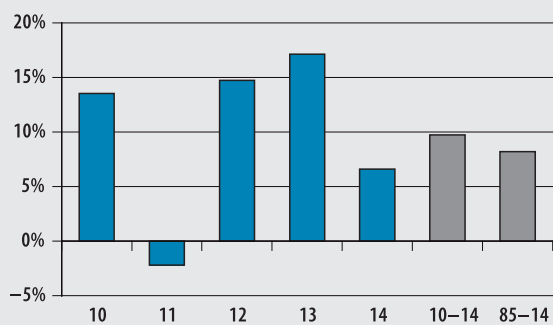
Board Meeting

Usually last Thursday of each
month at 9:00 am

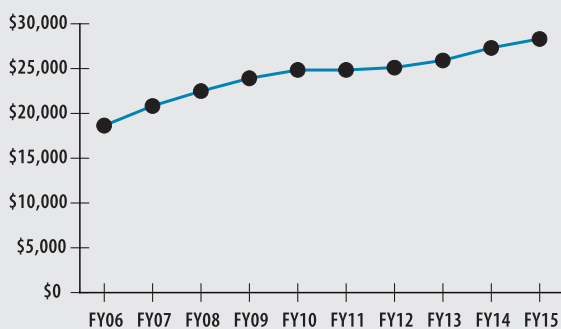
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.23%

29 years 2013
8.29%

28 years 2012
7.98%

10 years 2014
6.86%

10 years 2013
7.47%

10 years 2012
8.07%

5 years 2014
9.75%

5 years 2013
12.38%

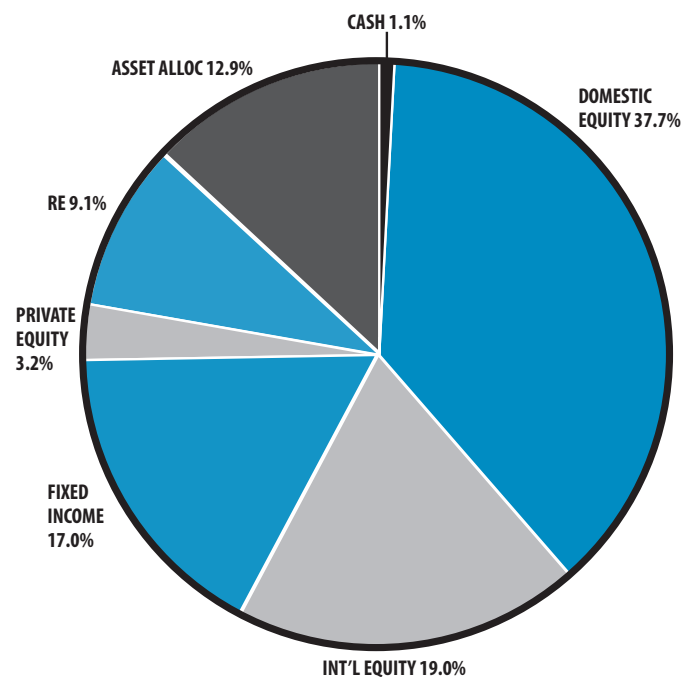
5 years 2012
2.25%

ACTUARIAL

▶ Funded Ratio	42.5%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$348.8 M
▶ Total Pension Appropriation (Fiscal 2015)	\$28.3 M

	ACTIVE	RETIRED
▶ Number of Members	1,903	1,812
▶ Total Payroll/Benefit	\$84.4 M	\$40.9 M
▶ Average Salary/Benefit	\$44,400	\$22,600
▶ Average Age	NA	74
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)

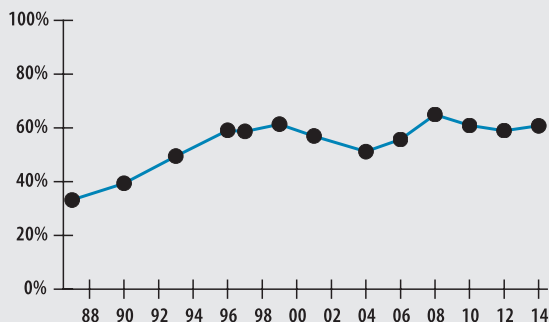


EARNED INCOME OF DISABILITY RETIREES (2013)

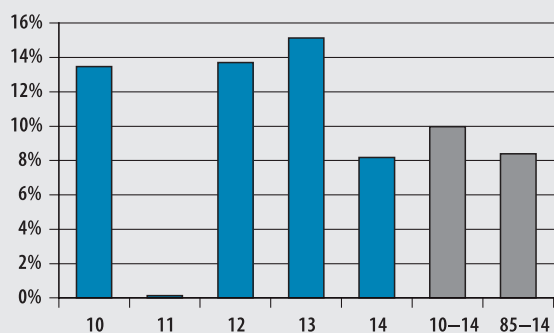
▶ Number of Disability Retirees	278
▶ Number Who Reported Earnings	77
▶ Number of Excess Earners	2
▶ Total Amount of Refund Due	\$7,823.01

▶ 2014 Return	6.62%
▶ 2014 Market Value	\$284.5 M
▶ 2010-2014 (Annualized)	9.75%
▶ 1985-2014 (Annualized)	8.23%

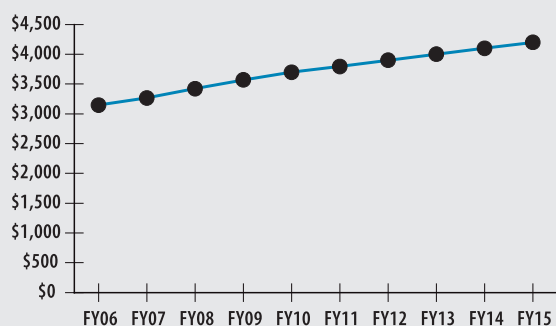
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.39%

29 years 2013
8.39%

28 years 2012
8.16%

10 years 2014
7.00%

10 years 2013
7.50%

10 years 2012
8.06%

5 years 2014
9.98%

5 years 2013
11.81%

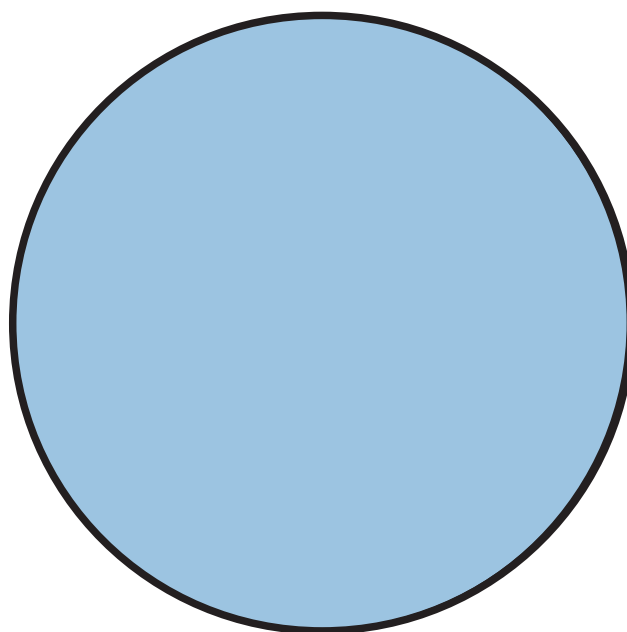
5 years 2012
1.45%

ACTUARIAL

▶ Funded Ratio	60.8%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Total Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$38.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$4.2 M

	ACTIVE	RETIRED
▶ Number of Members	364	224
▶ Total Payroll/Benefit	\$15.6 M	\$5.5 M
▶ Average Salary/Benefit	\$42,700	\$24,600
▶ Average Age	48	73
▶ Average Service	11.1 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	25
▶ Number Who Reported Earnings	7
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.17%
▶ 2014 Market Value	\$66.7 M
▶ 2010-2014 (Annualized)	9.98%
▶ 1985-2014 (Annualized)	8.39%

Newton

City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459-1449
Phone 617-796-1095
Fax 617-796-1098

Board Members

Nunzio J. Piselli (Chairperson),
Paul Bianchi, Francis P. Capello, Jr.,
Kimberly A. Fletcher, Esq.,
David C. Wilkinson

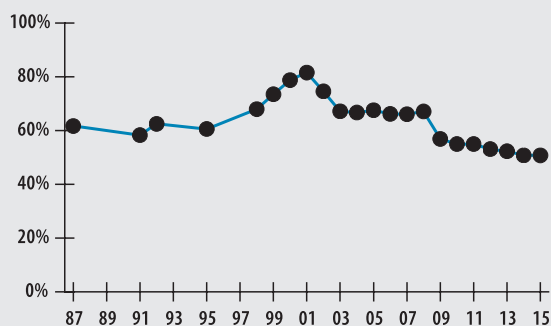
Board Administrator

Kelly Byrne

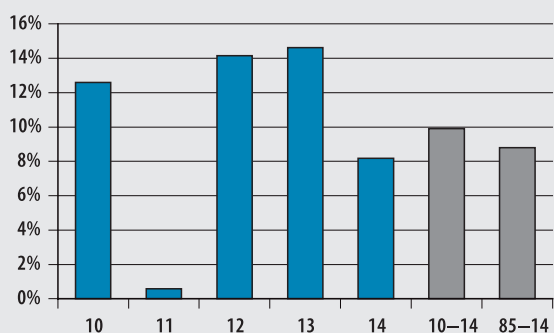
Board Meeting

Third Wednesday of the month at 3:00 pm

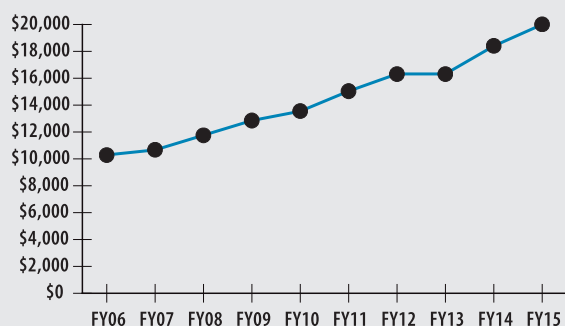
FUNDED RATIO (1987-2015)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.80%

29 years 2013

8.82%

28 years 2012

8.62%

10 years 2014

6.00%

10 years 2013

6.43%

10 years 2012

6.95%

5 years 2014

9.90%

5 years 2013

11.45%

5 years 2012

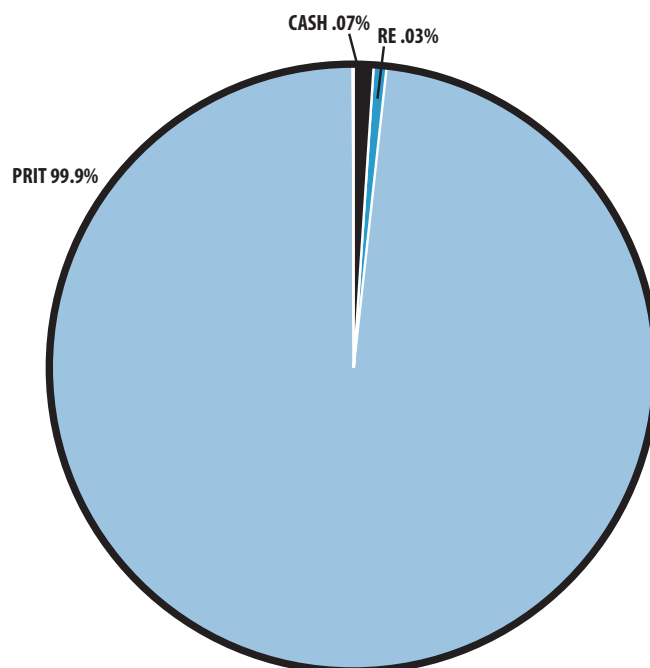
1.63%

ACTUARIAL

▶ Funded Ratio	50.8%
▶ Date of Last Valuation	01/15
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.65%
▶ Funding Schedule	8.75% Total Increasing
▶ Year Fully Funded	2029
▶ Unfunded Liability	\$284.3 M
▶ Total Pension Appropriation (Fiscal 2015)	\$20.0 M

	ACTIVE	RETIRED
▶ Number of Members	1,723	1,317
▶ Total Payroll/Benefit	\$92.1 M	\$34.1 M
▶ Average Salary/Benefit	\$53,500	\$25,900
▶ Average Age	45	NA
▶ Average Service	11.2 years	NA

ASSET ALLOCATION (12/31/14)

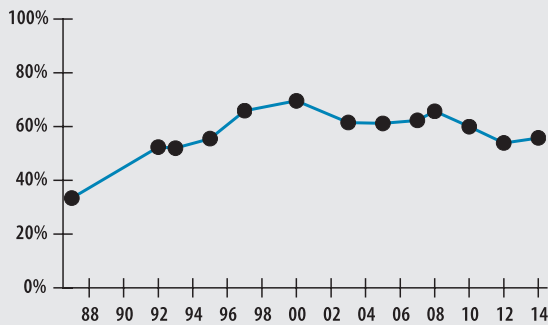


EARNED INCOME OF DISABILITY RETIREES (2013)

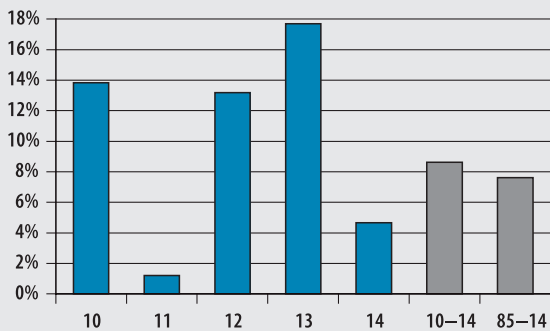
▶ Number of Disability Retirees	143
▶ Number Who Reported Earnings	37
▶ Number of Excess Earners	2
▶ Total Amount of Refund Due	\$4,319.97

▶ 2014 Return	8.18%
▶ 2014 Market Value	\$293.7 M
▶ 2010-2014 (Annualized)	9.90%
▶ 1985-2014 (Annualized)	8.80%

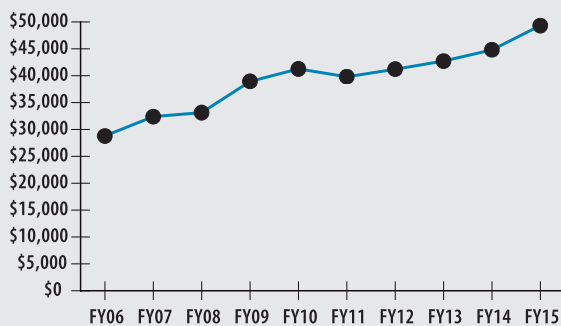
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



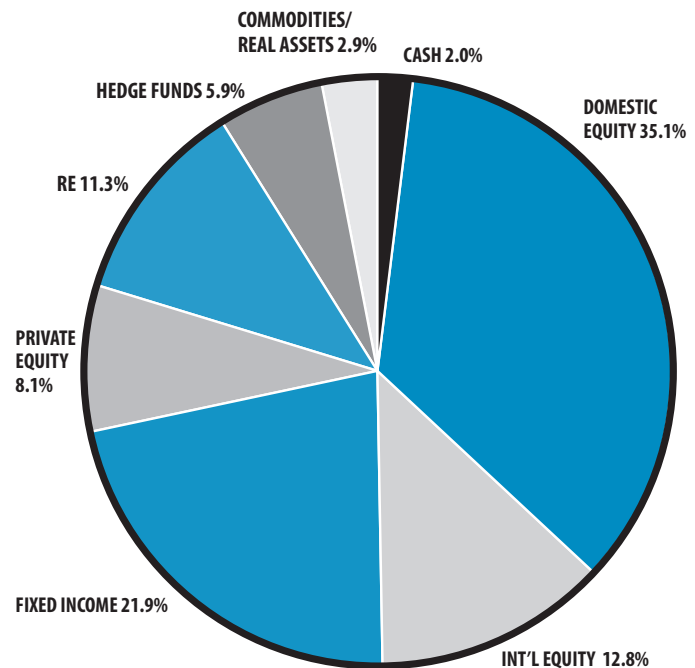
INVESTMENT RETURN HISTORY

30 years 2014 8.85%	29 years 2013 8.97%	28 years 2012 8.67%
10 years 2014 6.40%	10 years 2013 6.92%	10 years 2012 7.57%
5 years 2014 10.11%	5 years 2013 13.05%	5 years 2012 2.27%

ACTUARIAL

► Funded Ratio		55.8%
► Date of Last Valuation		01/14
► Actuary		Sherman Actuarial Services, LLC
► Assumed Rate of Return		8.25%
► Funding Schedule		4.0% Increasing Phase-in
► Year Fully Funded		2031
► Unfunded Liability		\$550.9 M
► Total Pension Appropriation (Fiscal 2015)		\$49.3 M
	ACTIVE	RETIRED
► Number of Members	5,153	3,023
► Total Payroll/Benefit	\$246.7 M	\$69.7 M
► Average Salary/Benefit	\$47,900	\$23,000
► Average Age	NA	73
► Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	297
▶ Number Who Reported Earnings	92
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$1,096.58

▶ 2014 Return	5.46%
▶ 2014 Market Value	\$776.5 M
▶ 2010-2014 (Annualized)	10.11%
▶ 1985-2014 (Annualized)	8.85%

North Adams

85 Main Street, Room 322
North Adams, MA 01247
Phone 413-663-5185
Fax 413-664-9412

Board Members

Lawrence R. O'Brien (Chairperson),
Matthew Labonte, Alan Marden,
Fred T. Thompson, Esq., Kathleen A. Wall

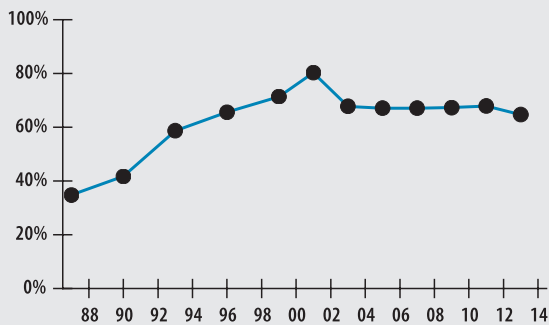
Board Administrator

Beth Matson

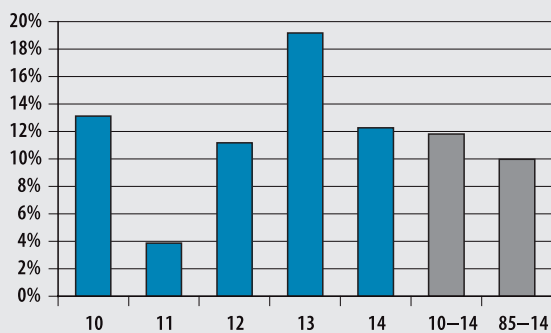
Board Meeting

Varies

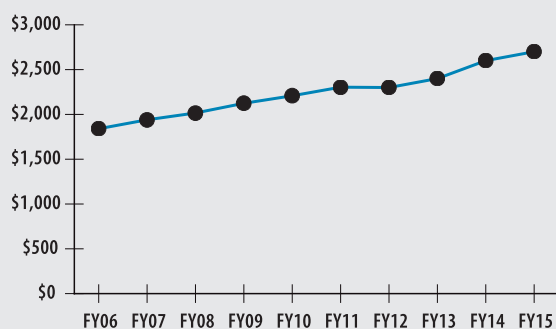
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.98%

29 years 2013
9.90%

28 years 2012
9.58%

10 years 2014
8.74%

10 years 2013
8.20%

10 years 2012
7.95%

5 years 2014
11.82%

5 years 2013
12.91%

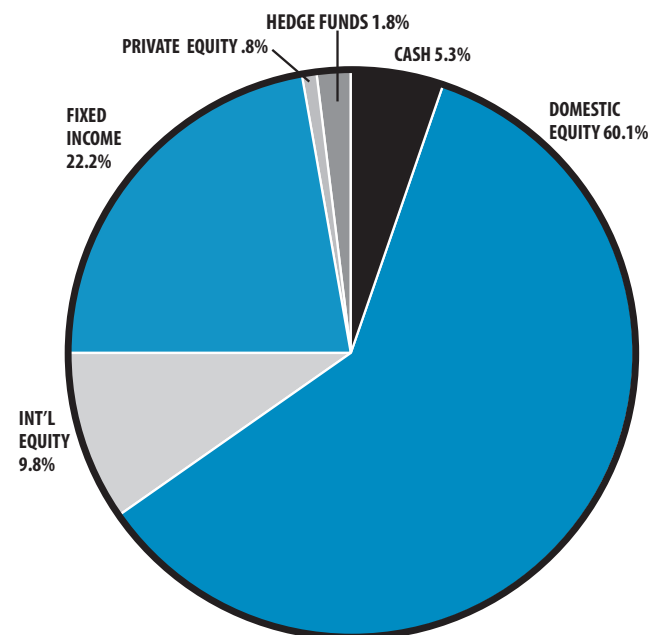
5 years 2012
3.95%

ACTUARIAL

▶ Funded Ratio	64.7%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2029
▶ Unfunded Liability	\$23.2 M
▶ Total Pension Appropriation (Fiscal 2015)	\$2.7 M

	ACTIVE	RETIRED
▶ Number of Members	339	222
▶ Total Payroll/Benefit	\$10.1 M	\$4.1 M
▶ Average Salary/Benefit	\$29,800	\$18,400
▶ Average Age	47	73
▶ Average Service	11.1 years	NA

ASSET ALLOCATION (12/31/14)

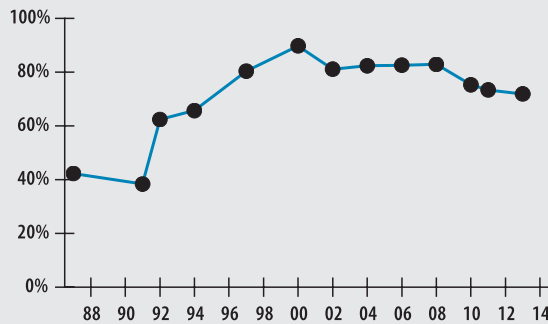


EARNED INCOME OF DISABILITY RETIREES (2013)

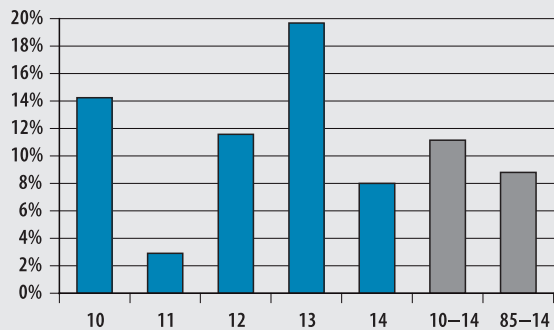
▶ Number of Disability Retirees	29
▶ Number Who Reported Earnings	13
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$12,883.65

▶ 2014 Return	12.28%
▶ 2014 Market Value	\$56.3 M
▶ 2010-2014 (Annualized)	11.82%
▶ 1985-2014 (Annualized)	9.98%

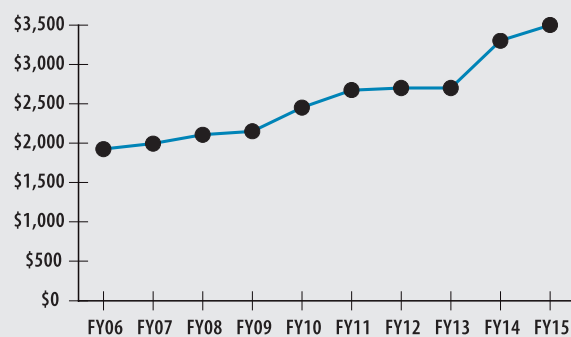
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

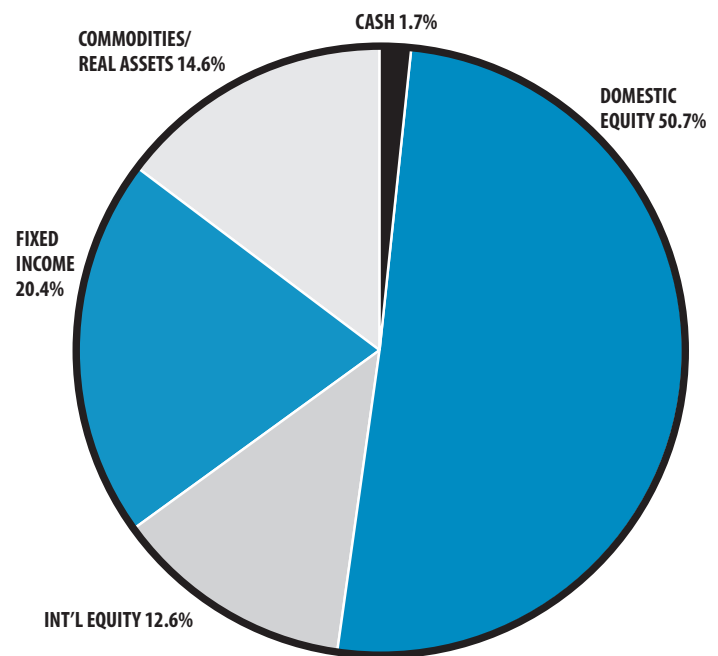
30 years 2014 8.81%	29 years 2013 8.84%	28 years 2012 8.47%
10 years 2014 6.59%	10 years 2013 6.90%	10 years 2012 6.88%
5 years 2014 11.15%	5 years 2013 13.36%	5 years 2012 3.46%

ACTUARIAL

▶ Funded Ratio	71.9%
▶ Date of Last Valuation	01/13
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2033
▶ Unfunded Liability	\$28.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.5 M

	ACTIVE	RETIRED
▶ Number of Members	468	234
▶ Total Payroll/Benefit	\$20.0 M	\$4.9 M
▶ Average Salary/Benefit	\$42,800	\$21,100
▶ Average Age	NA	71
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	21
▶ Number Who Reported Earnings	8
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$14,855.20

▶ 2014 Return	8.02%
▶ 2014 Market Value	\$95.3 M
▶ 2010-2014 (Annualized)	11.15%
▶ 1985-2014 (Annualized)	8.81%

Northampton

240 Main Street, First Floor
Northampton, MA 01060
Phone 413-587-1211
Fax 413-587-1278

Board Members

Joyce Karpinski (Chairperson),
Shirley A. LaRose, Michael J. Lyons,
Thomas F. Sullivan, Susan L. Wright

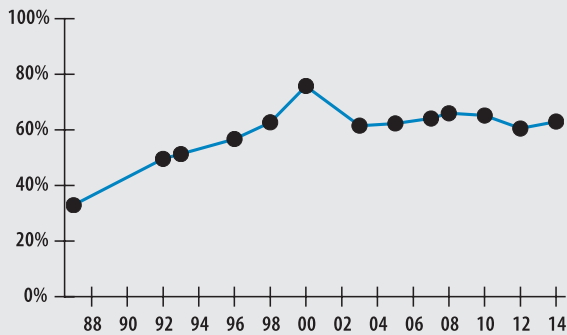
Board Administrator

David Shipka

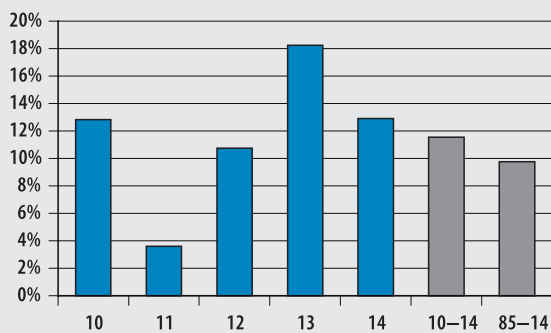
Board Meeting

Last Tuesday or Thursday of each month

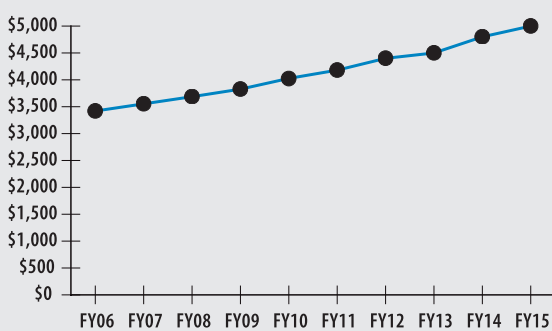
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.77%

29 years 2013

9.66%

28 years 2012

9.37%

10 years 2014

8.58%

10 years 2013

8.16%

10 years 2012

7.81%

5 years 2014

11.57%

5 years 2013

12.34%

5 years 2012

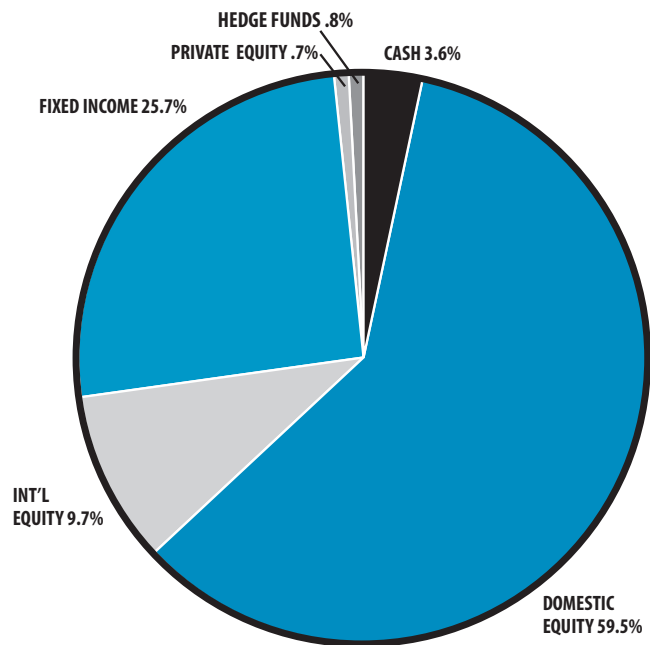
4.08%

ACTUARIAL

▶ Funded Ratio	63.0%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	3.77% Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$55.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.0 M

	ACTIVE	RETIRED
▶ Number of Members	604	392
▶ Total Payroll/Benefit	\$24.1 M	\$8.2 M
▶ Average Salary/Benefit	\$39,800	\$20,900
▶ Average Age	47	71
▶ Average Service	11.5 years	NA

ASSET ALLOCATION (12/31/14)

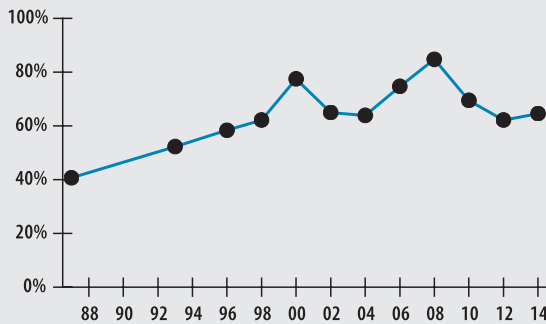


EARNED INCOME OF DISABILITY RETIREES (2013)

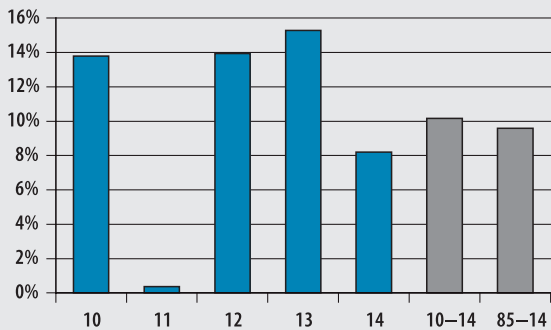
▶ Number of Disability Retirees	34
▶ Number Who Reported Earnings	14
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	12.91%
▶ 2014 Market Value	\$111.7 M
▶ 2010-2014 (Annualized)	11.57%
▶ 1985-2014 (Annualized)	9.77%

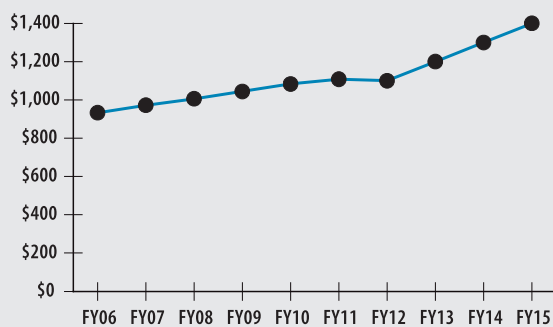
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

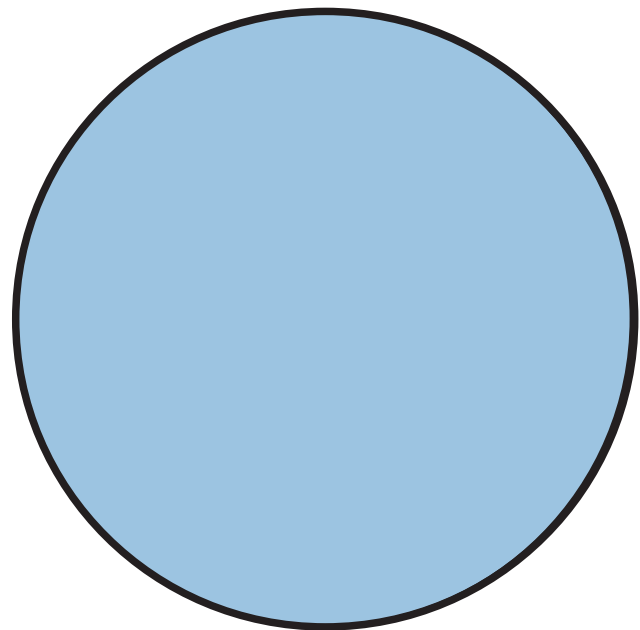
30 years 2014 9.58%	29 years 2013 9.62%	28 years 2012 9.43%
10 years 2014 7.10%	10 years 2013 7.71%	10 years 2012 8.71%
5 years 2014 10.17%	5 years 2013 12.03%	5 years 2012 1.53%

ACTUARIAL

▶ Funded Ratio	64.6%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2038
▶ Unfunded Liability	\$14.2 M
▶ Total Pension Appropriation (Fiscal 2015)	\$1.4 M

	ACTIVE	RETIRED
▶ Number of Members	204	110
▶ Total Payroll/Benefit	\$8.2 M	\$2.0 M
▶ Average Salary/Benefit	\$40,300	\$18,200
▶ Average Age	47	74
▶ Average Service	9.9 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	9
▶ Number Who Reported Earnings	3
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.20%
▶ 2014 Market Value	\$28.9 M
▶ 2010-2014 (Annualized)	10.17%
▶ 1985-2014 (Annualized)	9.58%

Norwood

566 Washington Street
Norwood, MA 02062
Phone 781-762-1240, Ext. 157
Fax 781-278-3024

Board Members

Thomas O'Toole, (Chairperson),
Eileen Hickey, Thomas J. McQuaid,
Ted Mulvehill, Jr., Thomas A. Rorrie

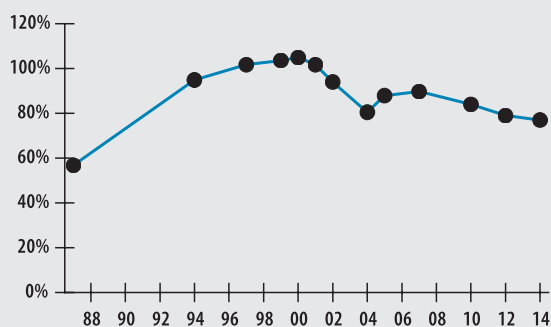
Board Administrator

Debra A. Wilkes

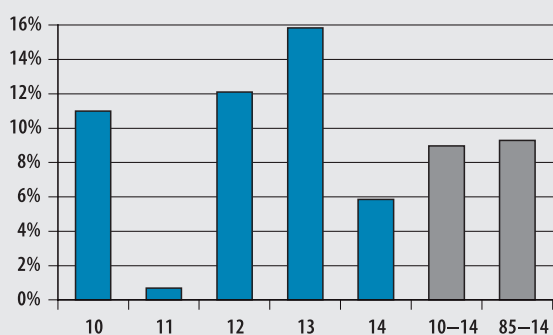
Board Meeting

Third Thursday of each month

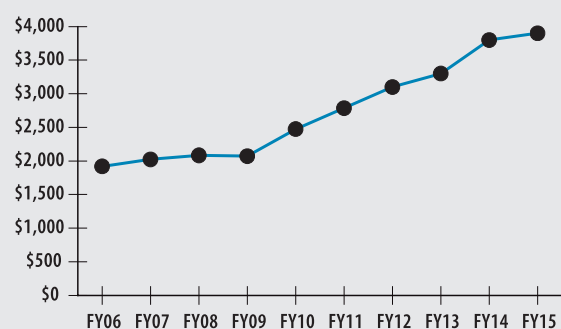
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.28%

29 years 2013

9.40%

28 years 2012

9.17%

10 years 2014

7.08%

10 years 2013

7.51%

10 years 2012

8.33%

5 years 2014

8.97%

5 years 2013

12.40%

5 years 2012

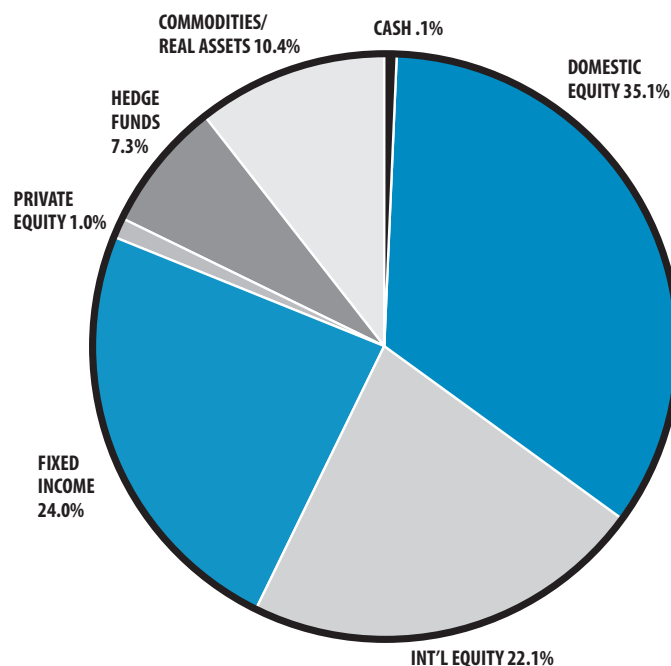
4.23%

ACTUARIAL

▶ Funded Ratio	77.0%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.25%
▶ Funding Schedule	4.5% Increasing Phase-in
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$38.4 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.9 M

	ACTIVE	RETIRED
▶ Number of Members	569	355
▶ Total Payroll/Benefit	\$29.1 M	\$8.7 M
▶ Average Salary/Benefit	\$51,200	\$24,400
▶ Average Age	NA	74
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)

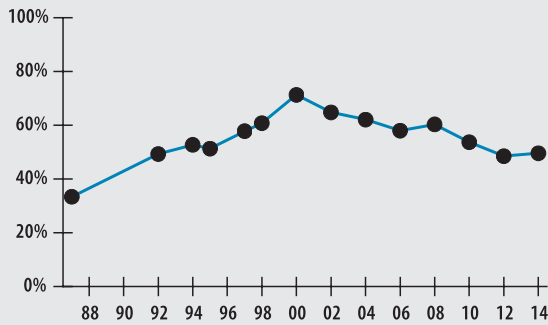


EARNED INCOME OF DISABILITY RETIREES (2013)

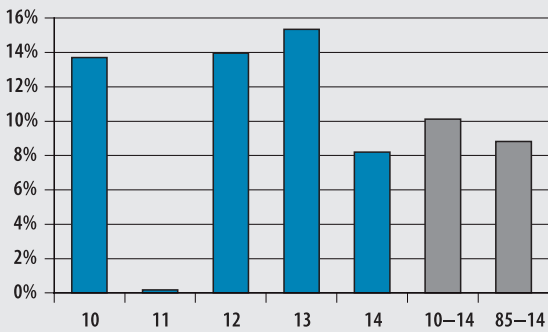
▶ Number of Disability Retirees	39
▶ Number Who Reported Earnings	15
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	5.86%
▶ 2014 Market Value	\$138.3 M
▶ 2010-2014 (Annualized)	8.97%
▶ 1985-2014 (Annualized)	9.28%

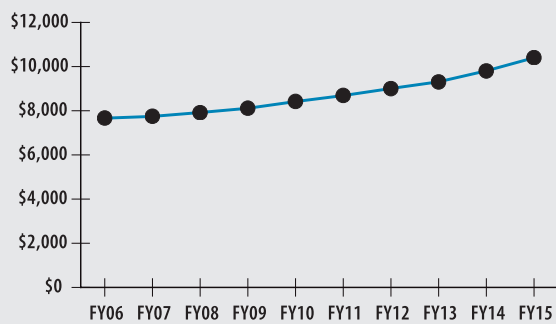
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

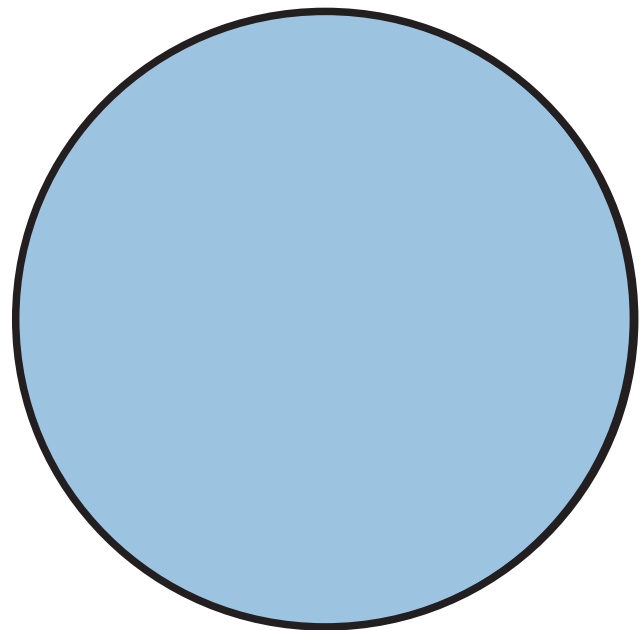
30 years 2014 8.81%	29 years 2013 8.83%	28 years 2012 8.61%
10 years 2014 5.79%	10 years 2013 5.94%	10 years 2012 6.35%
5 years 2014 10.13%	5 years 2013 12.01%	5 years 2012 1.53%

ACTUARIAL

▶ Funded Ratio	49.6%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.25%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$122.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$10.4 M

	ACTIVE	RETIRED
▶ Number of Members	796	785
▶ Total Payroll/Benefit	\$40.1 M	\$16.3 M
▶ Average Salary/Benefit	\$50,400	\$20,700
▶ Average Age	NA	76
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



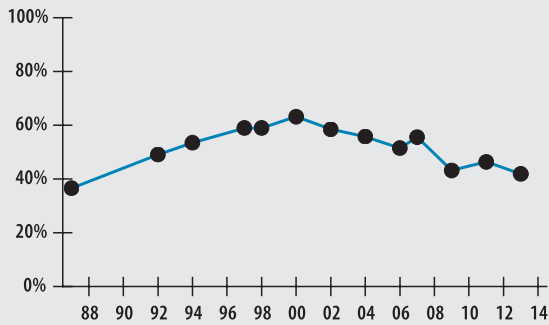
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

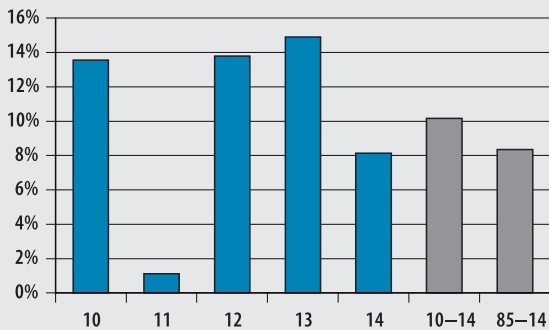
▶ Number of Disability Retirees	53
▶ Number Who Reported Earnings	17
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.20%
▶ 2014 Market Value	\$128.9 M
▶ 2010-2014 (Annualized)	10.13%
▶ 1985-2014 (Annualized)	8.81%

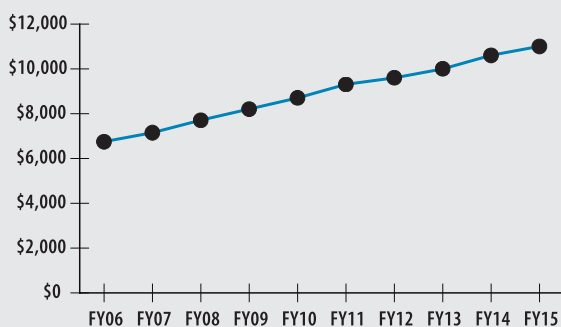
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

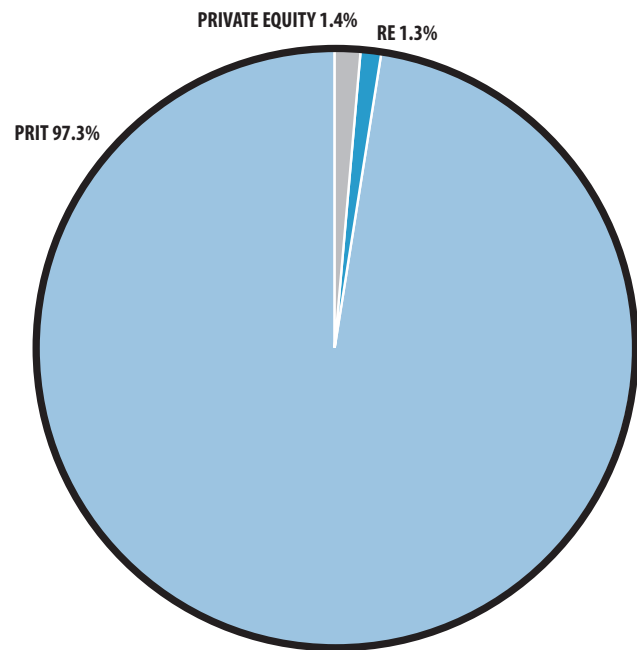
30 years 2014 8.35%	29 years 2013 8.36%	28 years 2012 8.13%
10 years 2014 5.68%	10 years 2013 5.76%	10 years 2012 6.28%
5 years 2014 10.17%	5 years 2013 11.36%	5 years 2012 1.57%

ACTUARIAL

▶ Funded Ratio	41.9%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2040
▶ Unfunded Liability	\$130.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$11.0 M

	ACTIVE	RETIRED
▶ Number of Members	918	757
▶ Total Payroll/Benefit	\$32.3 M	\$13.9 M
▶ Average Salary/Benefit	\$35,100	\$18,300
▶ Average Age	50	75
▶ Average Service	12.3 years	NA

ASSET ALLOCATION (12/31/14)

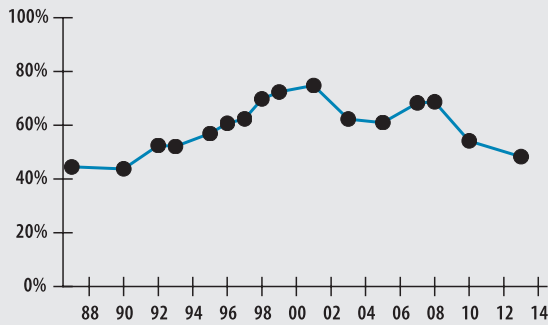


EARNED INCOME OF DISABILITY RETIREES (2013)

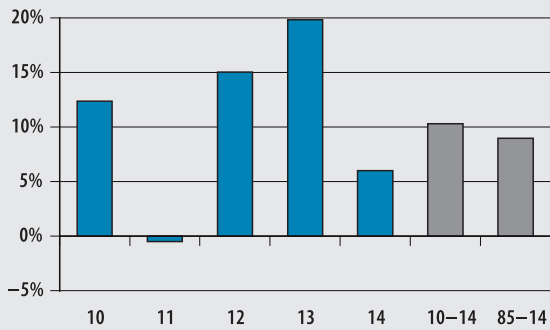
▶ Number of Disability Retirees	77
▶ Number Who Reported Earnings	23
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$373.21

▶ 2014 Return	8.13%
▶ 2014 Market Value	\$116.3 M
▶ 2010-2014 (Annualized)	10.17%
▶ 1985-2014 (Annualized)	8.35%

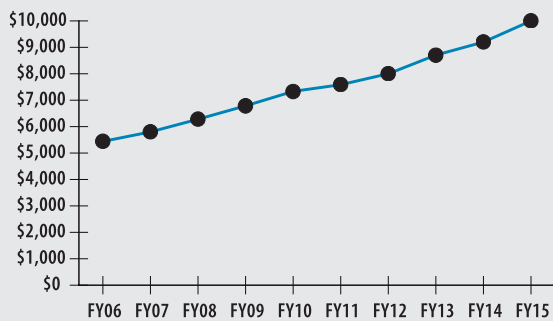
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

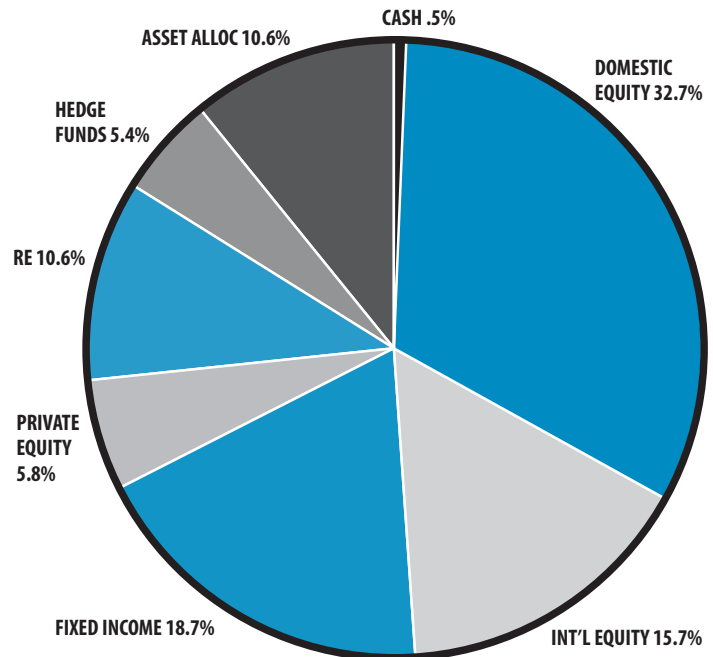
30 years 2014 8.97%	29 years 2013 9.07%	28 years 2012 8.71%
10 years 2014 6.78%	10 years 2013 7.33%	10 years 2012 7.58%
5 years 2014 10.33%	5 years 2013 13.56%	5 years 2012 2.59%

ACTUARIAL

▶ Funded Ratio	48.3%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	8.0% Total Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$127.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$10.0 M

	ACTIVE	RETIRED
▶ Number of Members	877	626
▶ Total Payroll/Benefit	\$35.7 M	\$14.1 M
▶ Average Salary/Benefit	\$40,800	\$22,500
▶ Average Age	49	70
▶ Average Service	12.7 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	69
▶ Number Who Reported Earnings	22
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	6.01%
▶ 2014 Market Value	\$145.0 M
▶ 2010-2014 (Annualized)	10.33%
▶ 1985-2014 (Annualized)	8.97%

Board Members

Thomas J. O'Brien (Chairperson),
Mary Beth Carter, James E. Harrington,
Joseph F. McDonough, Esq.,
John F. Sciara

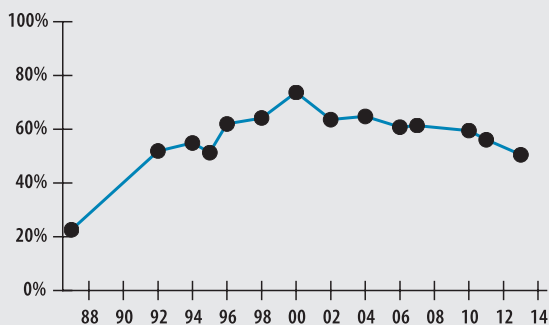
Board Administrator

William Farmer

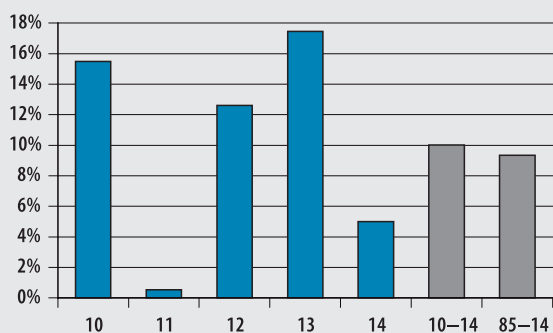
Board Meeting

Usually the last Tuesday of each month

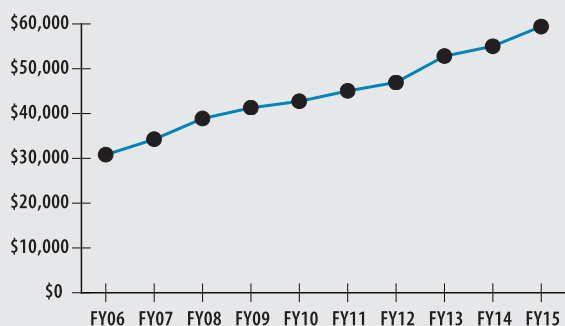
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.35%

29 years 2013
9.50%

28 years 2012
9.23%

10 years 2014
6.40%

10 years 2013
7.14%

10 years 2012
8.11%

5 years 2014
10.03%

5 years 2013
13.09%

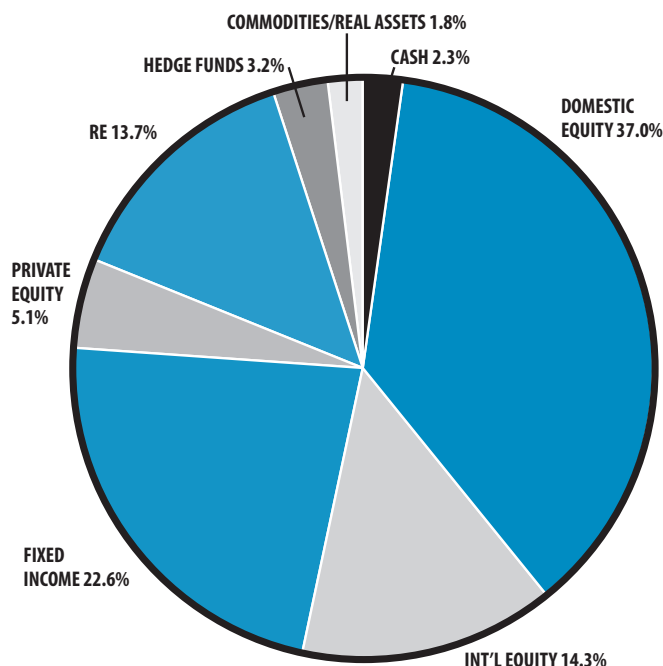
5 years 2012
2.23%

ACTUARIAL

▶ Funded Ratio	50.5%
▶ Date of Last Valuation	01/13
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.25%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2034
▶ Unfunded Liability	\$652.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$59.4 M

	ACTIVE	RETIRED
▶ Number of Members	5,729	3,588
▶ Total Payroll/Benefit	\$238.7 M	\$74.2 M
▶ Average Salary/Benefit	\$41,700	\$20,700
▶ Average Age	NA	72
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	309
▶ Number Who Reported Earnings	104
▶ Number of Excess Earners	5
▶ Total Amount of Refund Due	\$98,363.96

▶ 2014 Return	5.00%
▶ 2014 Market Value	\$836.0 M
▶ 2010-2014 (Annualized)	10.03%
▶ 1985-2014 (Annualized)	9.35%

Board Members

George F. McCray (Chairperson),
Richard P. Crespi, Richard D. Fitzpatrick,
Robert E. Foy III, Susan M. O'Connor

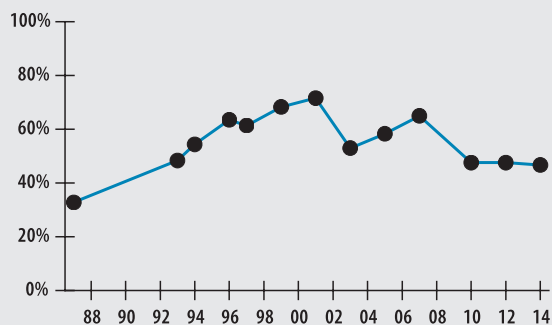
Board Administrator

Edward J. Masterson

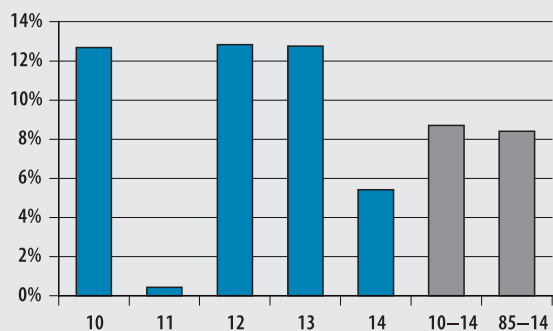
Board Meeting

Varies

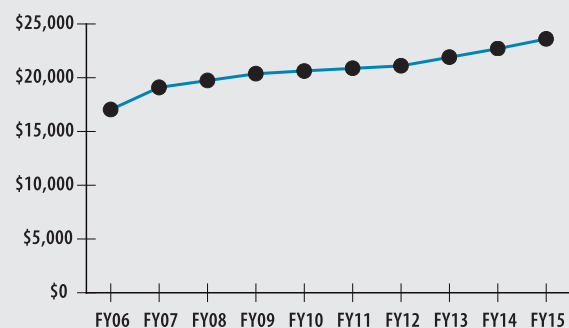
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.40%

29 years 2013
8.50%

28 years 2012
8.35%

10 years 2014
5.84%

10 years 2013
6.36%

10 years 2012
7.05%

5 years 2014
8.71%

5 years 2013
11.21%

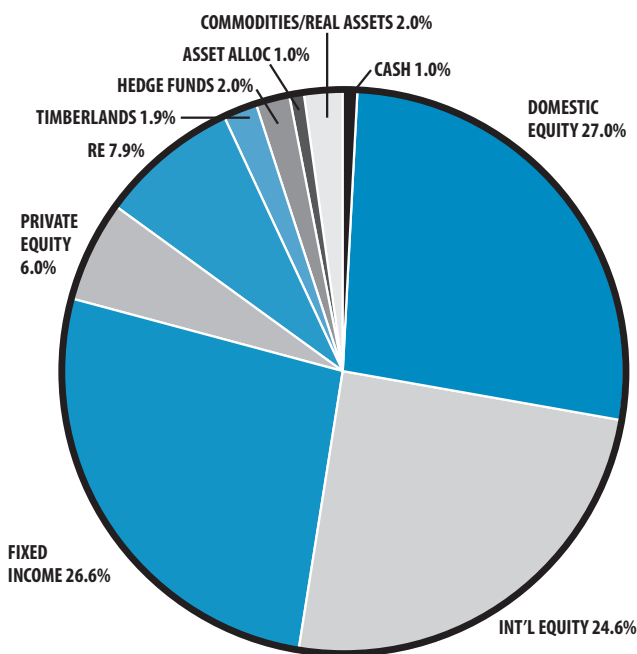
5 years 2012
2.58%

ACTUARIAL

▶ Funded Ratio	46.7%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	5.4% Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$337.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$23.6 M

	ACTIVE	RETIRED
▶ Number of Members	1,356	1,567
▶ Total Payroll/Benefit	\$80.3 M	\$41.9 M
▶ Average Salary/Benefit	\$59,200	\$26,700
▶ Average Age	50	74
▶ Average Service	13.4 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	135
▶ Number Who Reported Earnings	30
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	5.43%
▶ 2014 Market Value	\$298.5 M
▶ 2010-2014 (Annualized)	8.71%
▶ 1985-2014 (Annualized)	8.40%

Reading

16 Lowell Street
Reading, MA 01867
Phone 781-942-9007
Fax 781-942-9037

Board Members

Francis P. Driscoll (Chairperson),
Sharon M. Angstrom, Thomas A. Clough,
Nancy Heffernan, Joseph R. Veno

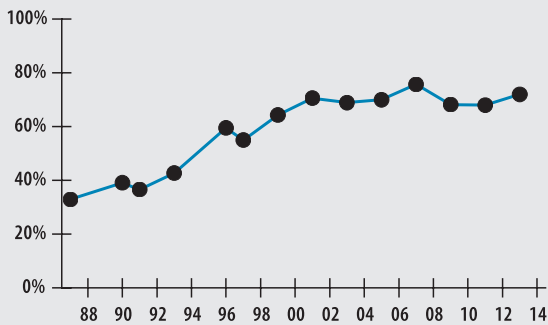
Board Administrator

Colleen Loughlin

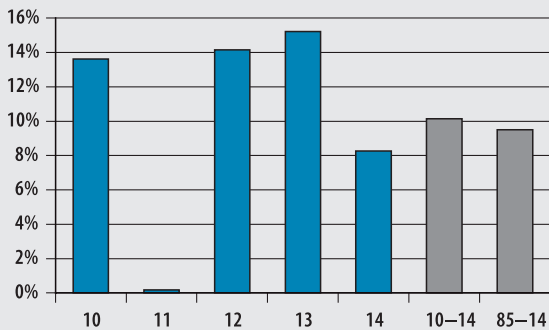
Board Meeting

Fourth Tuesday of each month at 6:00 pm

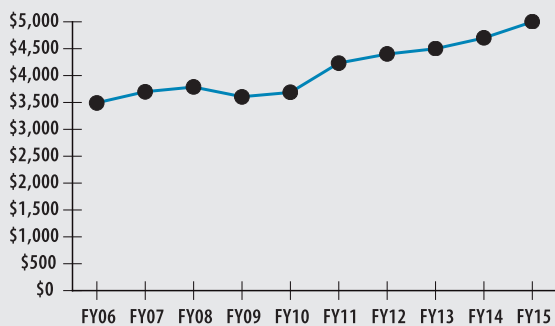
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.50%

29 years 2013

9.54%

28 years 2012

9.34%

10 years 2014

7.14%

10 years 2013

7.73%

10 years 2012

8.73%

5 years 2014

10.14%

5 years 2013

12.02%

5 years 2012

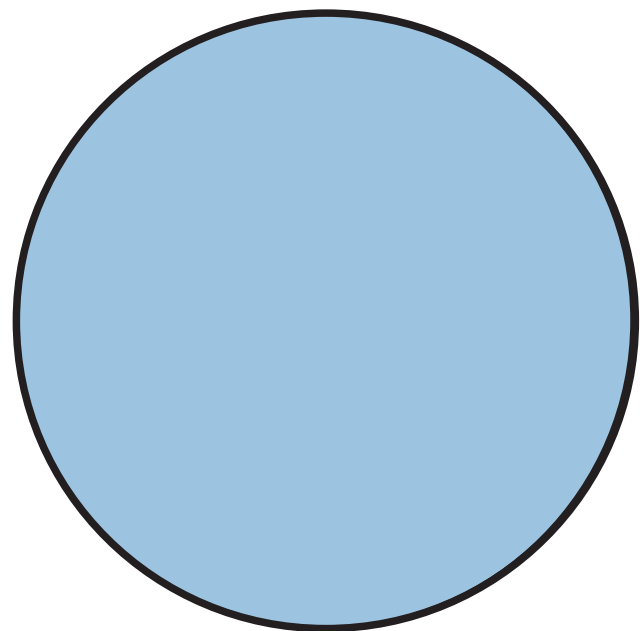
1.57%

ACTUARIAL

▶ Funded Ratio	72.0%
▶ Date of Last Valuation	07/13
▶ Actuary	KMS Actuaries
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.5% Total Increasing
▶ Year Fully Funded	2028
▶ Unfunded Liability	\$39.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.0 M

	ACTIVE	RETIRED
▶ Number of Members	344	331
▶ Total Payroll/Benefit	\$20.9 M	\$8.2 M
▶ Average Salary/Benefit	\$60,800	\$24,900
▶ Average Age	48	74
▶ Average Service	15.2 years	NA

ASSET ALLOCATION (12/31/14)

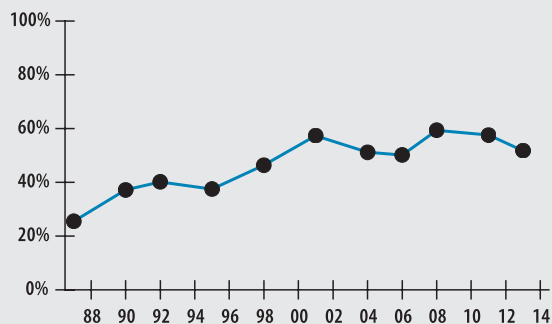
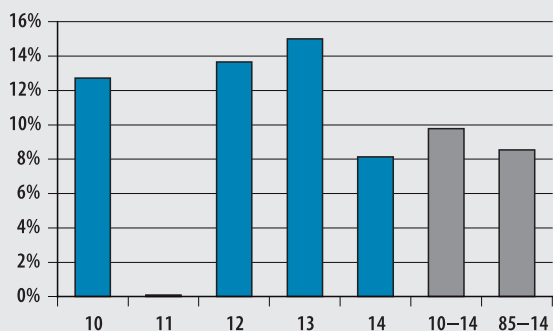
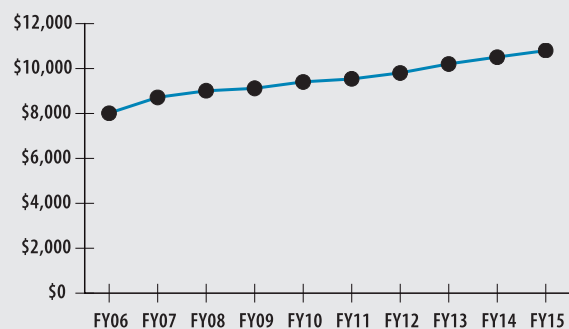


PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	33
▶ Number Who Reported Earnings	11
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$8,139.85

▶ 2014 Return	8.27%
▶ 2014 Market Value	\$119.0 M
▶ 2010-2014 (Annualized)	10.14%
▶ 1985-2014 (Annualized)	9.50%

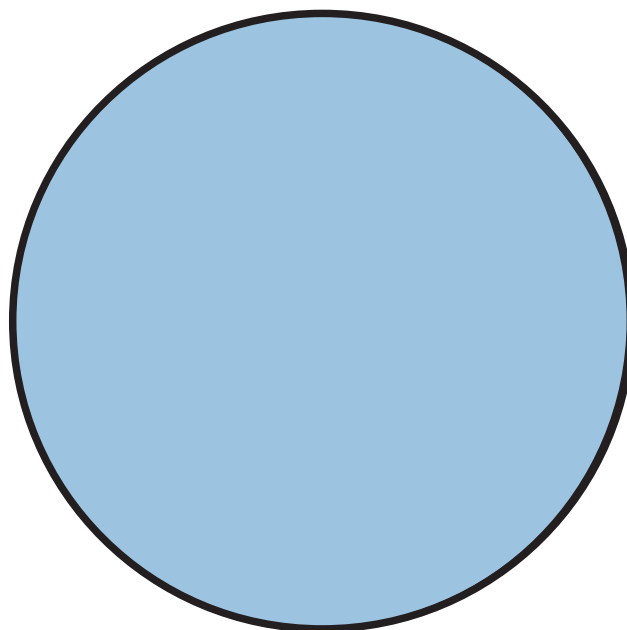
FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY

30 years 2014 8.54%	29 years 2013 8.56%	28 years 2012 8.34%
10 years 2014 6.84%	10 years 2013 7.39%	10 years 2012 8.31%
5 years 2014 9.79%	5 years 2013 11.51%	5 years 2012 1.41%

ACTUARIAL

▶ Funded Ratio	51.8%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	3.8% Increasing
▶ Year Fully Funded	2031
▶ Unfunded Liability	\$95.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$10.8 M

	ACTIVE	RETIRED
▶ Number of Members	538	528
▶ Total Payroll/Benefit	\$27.4 M	\$13.1 M
▶ Average Salary/Benefit	\$51,000	\$24,900
▶ Average Age	50	76
▶ Average Service	13.0 years	NA

ASSET ALLOCATION (12/31/14)


PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	88
▶ Number Who Reported Earnings	33
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.14%
▶ 2014 Market Value	\$126.6 M
▶ 2010-2014 (Annualized)	9.79%
▶ 1985-2014 (Annualized)	8.54%

Salem

20 Central Street
Suite 110
Salem, MA 01970
Phone 978-745-8983
Fax 978-745-4216

Board Members

Sally Hayes (Chairperson),
John H. Burke, Jr., Kimberly Driscoll,
Robert Lutts, Sarah A. Stanton

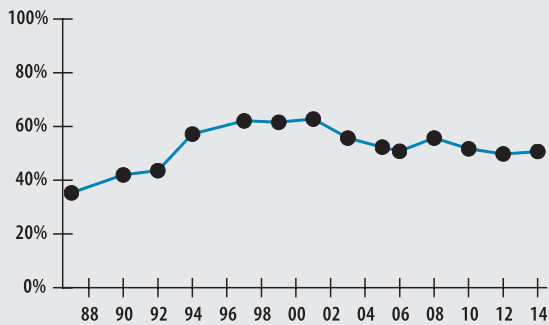
Board Administrator

Paul Findlen

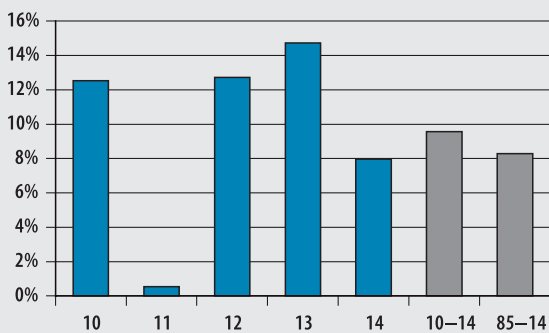
Board Meeting

Last Wednesday of each month

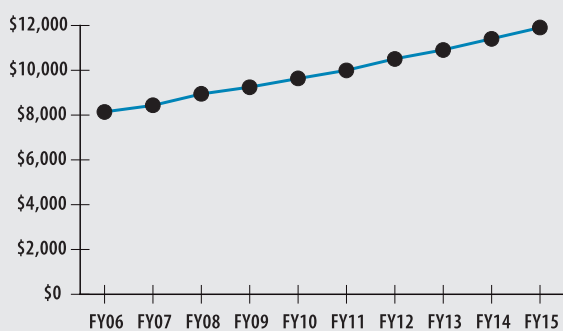
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.28%

29 years 2013
8.29%

28 years 2012
8.06%

10 years 2014
5.47%

10 years 2013
5.66%

10 years 2012
6.03%

5 years 2014
9.57%

5 years 2013
11.04%

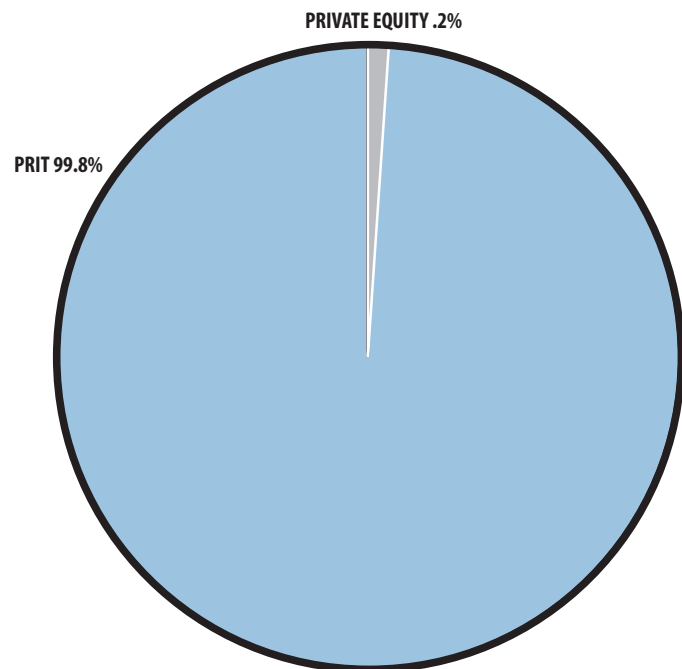
5 years 2012
0.90%

ACTUARIAL

▶ Funded Ratio	50.7%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.5% Increasing
▶ Year Fully Funded	2031
▶ Unfunded Liability	\$117.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$11.9 M

	ACTIVE	RETIRED
▶ Number of Members	827	571
▶ Total Payroll/Benefit	\$38.7 M	\$12.9 M
▶ Average Salary/Benefit	\$46,800	\$22,600
▶ Average Age	49	75
▶ Average Service	12.6 years	NA

ASSET ALLOCATION (12/31/14)

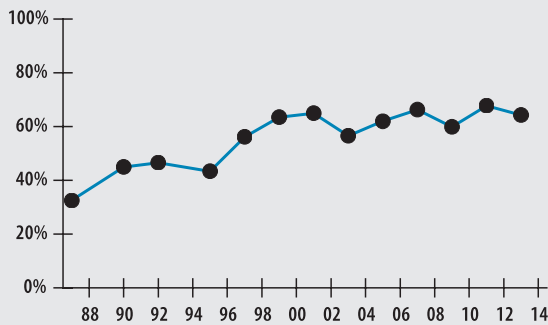


EARNED INCOME OF DISABILITY RETIREES (2013)

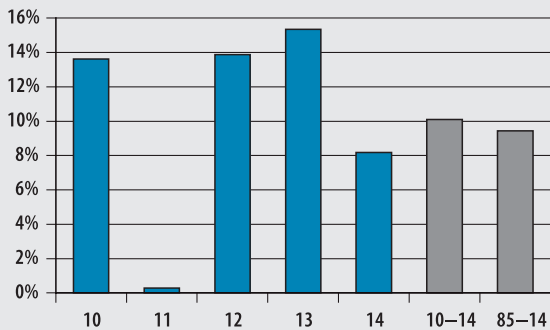
▶ Number of Disability Retirees	52
▶ Number Who Reported Earnings	11
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	7.96%
▶ 2014 Market Value	\$134.8 M
▶ 2010-2014 (Annualized)	9.57%
▶ 1985-2014 (Annualized)	8.28%

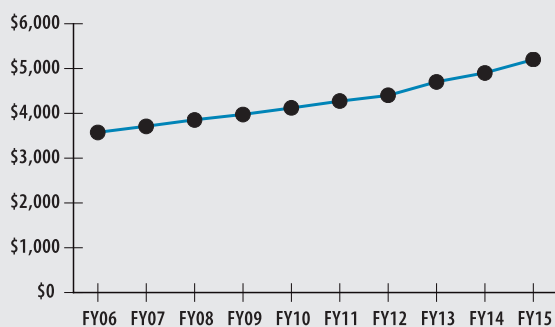
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



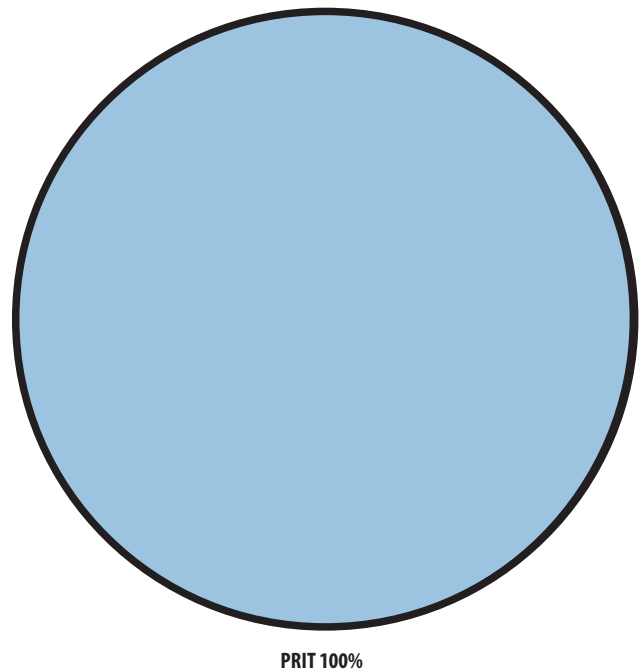
INVESTMENT RETURN HISTORY

30 years 2014 9.44%	29 years 2013 9.48%	28 years 2012 9.28%
10 years 2014 7.10%	10 years 2013 7.68%	10 years 2012 8.65%
5 years 2014 10.11%	5 years 2013 11.99%	5 years 2012 1.54%

ACTUARIAL

▶ Funded Ratio		64.3%
▶ Date of Last Valuation		01/13
▶ Actuary		PERAC
▶ Assumed Rate of Return		7.75%
▶ Funding Schedule		2.0% Increasing Phase-in
▶ Year Fully Funded		2025
▶ Unfunded Liability		\$37.5 M
▶ Total Pension Appropriation (Fiscal 2015)		\$5.2 M
	ACTIVE	RETIRED
▶ Number of Members	336	279
▶ Total Payroll/Benefit	\$14.5 M	\$6.5 M
▶ Average Salary/Benefit	\$43,300	\$23,400
▶ Average Age	48	75
▶ Average Service	13.3 years	NA

ASSET ALLOCATION (12/31/14)

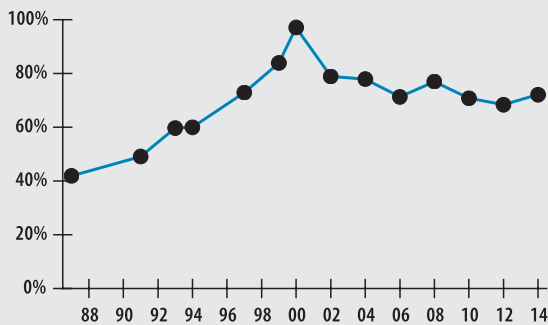


EARNED INCOME OF DISABILITY RETIREES (2013)

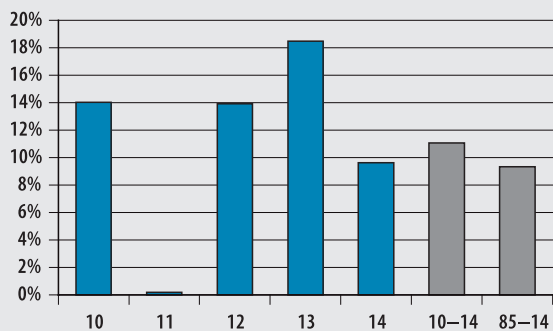
▶ Number of Disability Retirees	24
▶ Number Who Reported Earnings	8
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.17%
▶ 2014 Market Value	\$81.1 M
▶ 2010-2014 (Annualized)	10.11%
▶ 1985-2014 (Annualized)	9.44%

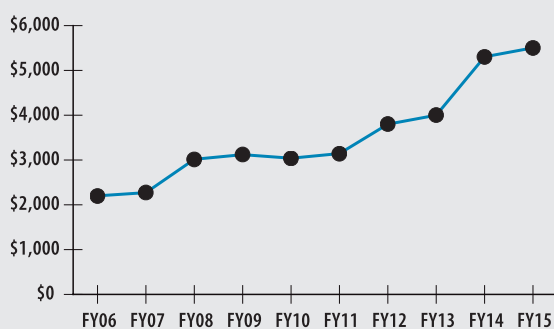
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.35%

29 years 2013
9.34%

28 years 2012
9.03%

10 years 2014
7.09%

10 years 2013
7.21%

10 years 2012
7.34%

5 years 2014
11.09%

5 years 2013
13.12%

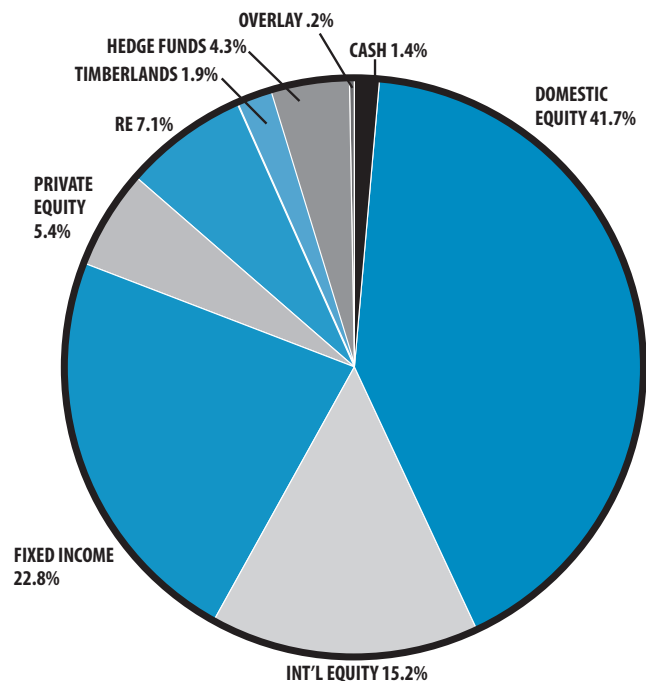
5 years 2012
2.51%

ACTUARIAL

▶ Funded Ratio	72.1%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.5% Increasing
▶ Year Fully Funded	2022
▶ Unfunded Liability	\$32.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.5 M

	ACTIVE	RETIRED
▶ Number of Members	572	249
▶ Total Payroll/Benefit	\$23.9 M	\$6.3 M
▶ Average Salary/Benefit	\$41,800	\$25,400
▶ Average Age	NA	73
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)

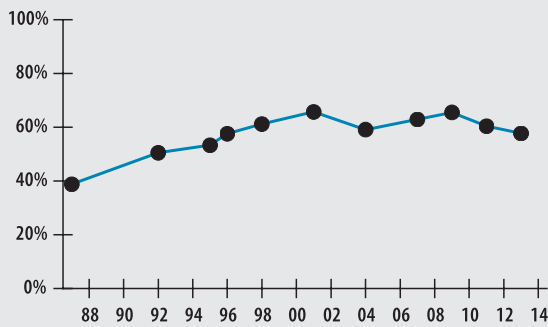


EARNED INCOME OF DISABILITY RETIREES (2013)

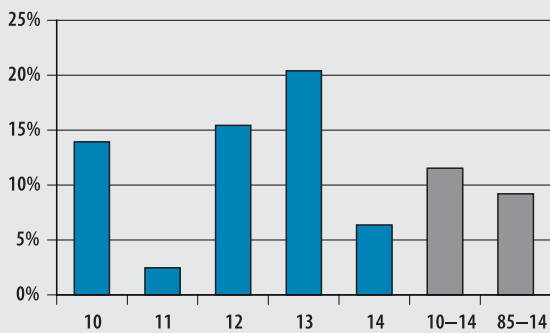
▶ Number of Disability Retirees	22
▶ Number Who Reported Earnings	10
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	9.64%
▶ 2014 Market Value	\$97.2 M
▶ 2010-2014 (Annualized)	11.09%
▶ 1985-2014 (Annualized)	9.35%

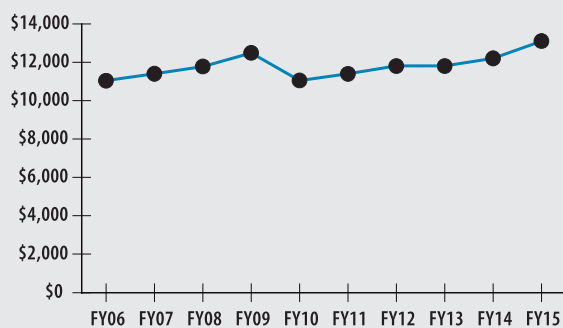
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



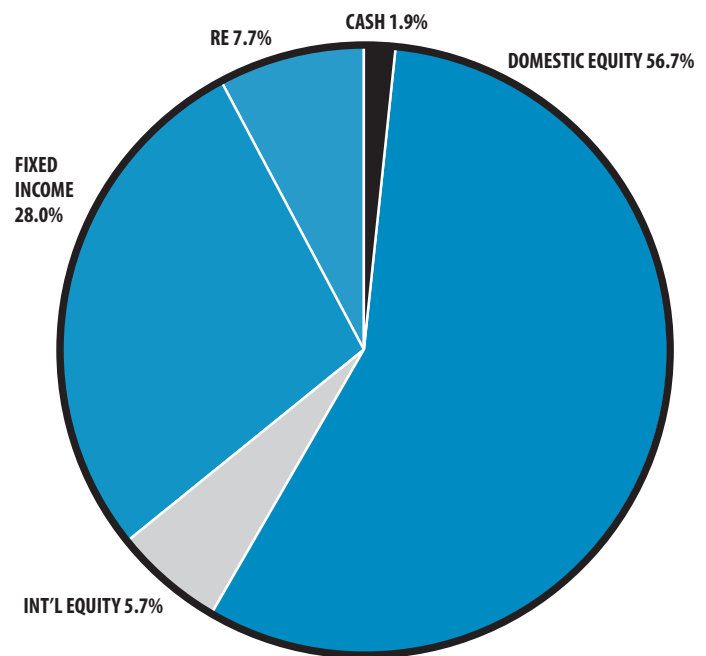
INVESTMENT RETURN HISTORY

30 years 2014 9.21%	29 years 2013 9.31%	28 years 2012 8.93%
10 years 2014 7.67%	10 years 2013 8.44%	10 years 2012 8.17%
5 years 2014 11.55%	5 years 2013 14.77%	5 years 2012 4.04%

ACTUARIAL

▶ Funded Ratio		57.7%
▶ Date of Last Valuation		01/13
▶ Actuary	Sherman Actuarial Services, LLC	
▶ Assumed Rate of Return		8.25%
▶ Funding Schedule	4.0% Increasing Phase-in	
▶ Year Fully Funded		2034
▶ Unfunded Liability		\$141.8 M
▶ Total Pension Appropriation (Fiscal 2015)		\$13.1 M
	ACTIVE	RETIRED
▶ Number of Members	1,132	870
▶ Total Payroll/Benefit	\$60.6 M	\$20.6 M
▶ Average Salary/Benefit	\$53,500	\$23,600
▶ Average Age	NA	75
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)

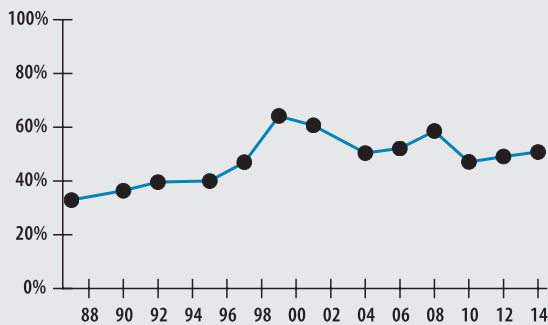


EARNED INCOME OF DISABILITY RETIREES (2013)

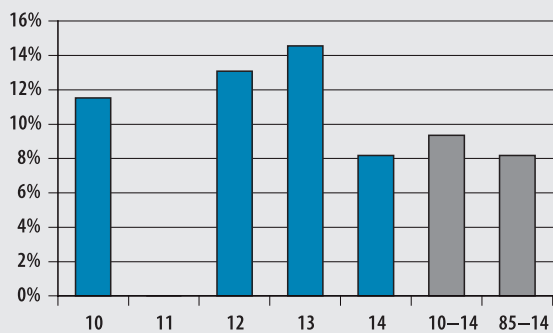
▶ Number of Disability Retirees	104
▶ Number Who Reported Earnings	26
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$866.12

▶ 2014 Return	6.39%
▶ 2014 Market Value	\$242.7 M
▶ 2010-2014 (Annualized)	11.55%
▶ 1985-2014 (Annualized)	9.21%

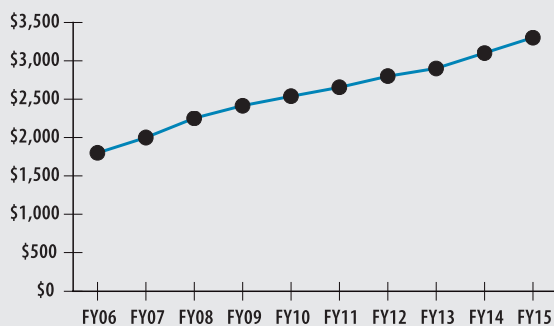
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.17%

29 years 2013
8.17%

28 years 2012
7.95%

10 years 2014
4.68%

10 years 2013
4.90%

10 years 2012
5.26%

5 years 2014
9.35%

5 years 2013
10.47%

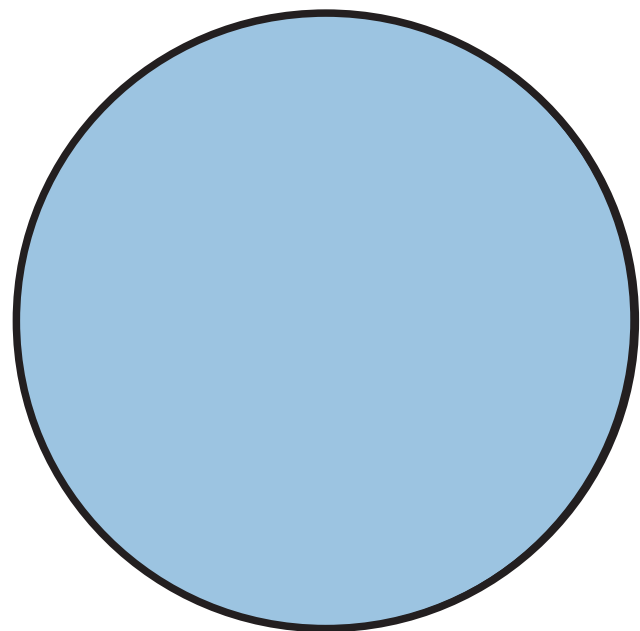
5 years 2012
0.01%

ACTUARIAL

▶ Funded Ratio	50.8%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	5.0% Total Increasing
▶ Year Fully Funded	2034
▶ Unfunded Liability	\$33.2 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.3 M

	ACTIVE	RETIRED
▶ Number of Members	368	176
▶ Total Payroll/Benefit	\$15.0 M	\$3.4 M
▶ Average Salary/Benefit	\$40,600	\$19,400
▶ Average Age	47	73
▶ Average Service	9.9 years	NA

ASSET ALLOCATION (12/31/14)



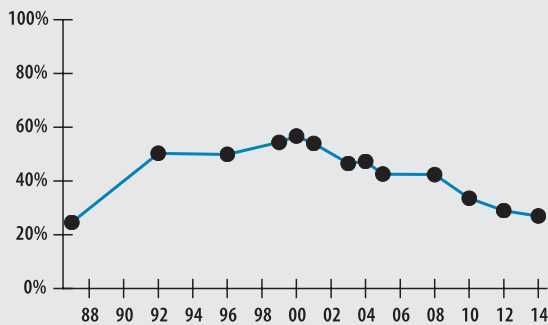
PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

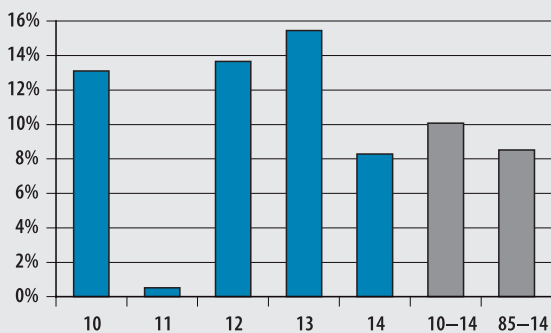
▶ Number of Disability Retirees	14
▶ Number Who Reported Earnings	5
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.17%
▶ 2014 Market Value	\$40.0 M
▶ 2010-2014 (Annualized)	9.35%
▶ 1985-2014 (Annualized)	8.17%

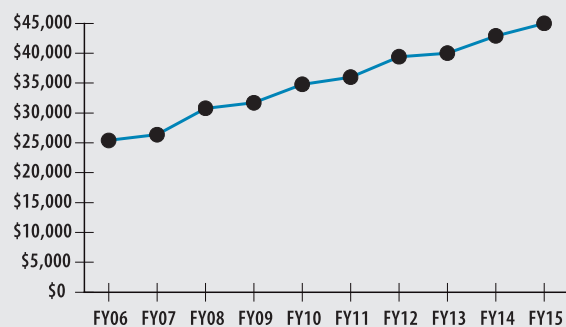
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

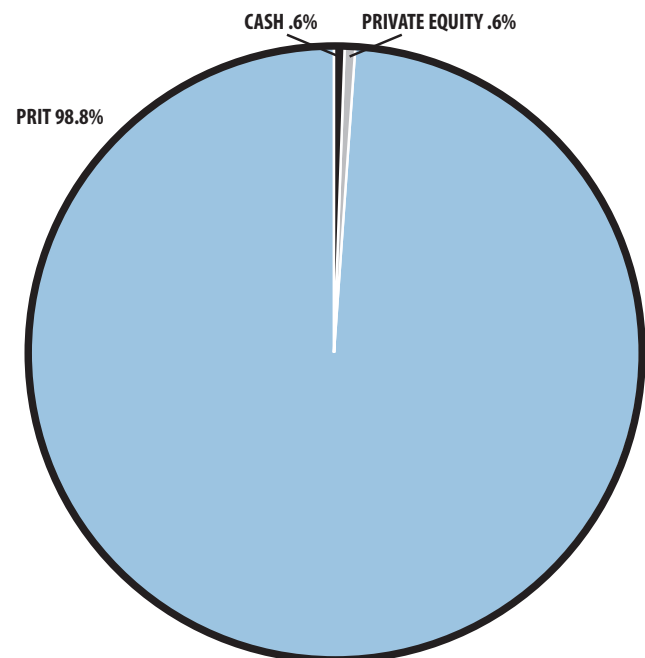
30 years 2014 8.53%	29 years 2013 8.54%	28 years 2012 8.30%
10 years 2014 6.29%	10 years 2013 6.56%	10 years 2012 7.06%
5 years 2014 10.07%	5 years 2013 11.29%	5 years 2012 1.09%

ACTUARIAL

▶ Funded Ratio	27.0%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2035
▶ Unfunded Liability	\$731.0 M
▶ Total Pension Appropriation (Fiscal 2015)	\$45.0 M

	ACTIVE	RETIRED
▶ Number of Members	3,208	2,791
▶ Total Payroll/Benefit	\$139.7 M	\$63.2 M
▶ Average Salary/Benefit	\$43,500	\$22,600
▶ Average Age	47	73
▶ Average Service	13.2 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	440
▶ Number Who Reported Earnings	125
▶ Number of Excess Earners	12
▶ Total Amount of Refund Due	\$56,171.11

▶ 2014 Return	8.29%
▶ 2014 Market Value	\$296.0 M
▶ 2010-2014 (Annualized)	10.07%
▶ 1985-2014 (Annualized)	8.53%

State

Boston Office
One Winter Street, 8th floor
Boston, MA 02108
Phone 617-367-7770
Fax 617-723-1438

Board Members

Treasurer Deborah B. Goldberg (Chairperson),
Christopher S. Condon, Patricia Deal,
Theresa McGoldrick, Esq., Ralph White

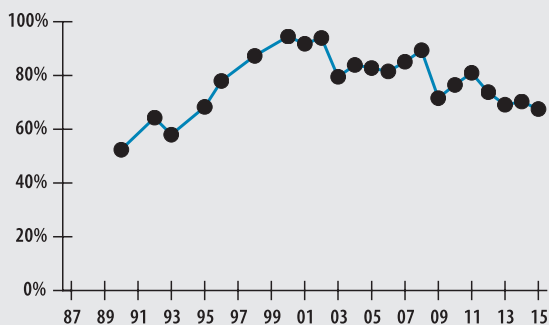
Board Administrator

Nicola Favorito, Esq.

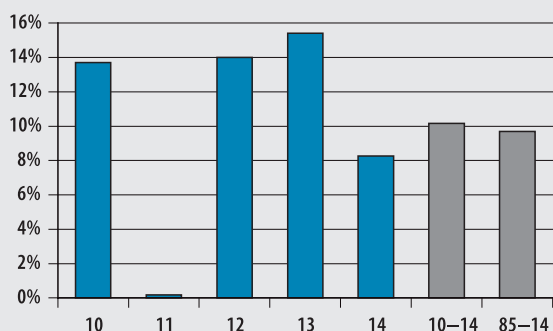
Board Meeting

Last Thursday of each month

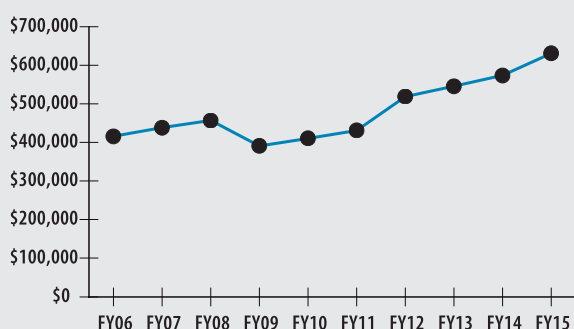
FUNDED RATIO (1987-2015)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.69%

29 years 2013

9.74%

28 years 2012

9.54%

10 years 2014

7.12%

10 years 2013

7.72%

10 years 2012

8.71%

5 years 2014

10.16%

5 years 2013

12.05%

5 years 2012

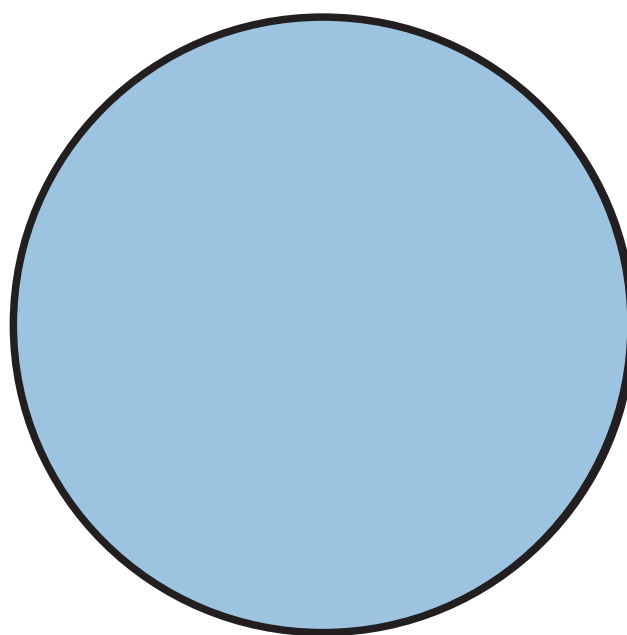
1.52%

ACTUARIAL

▶ Funded Ratio	67.5%
▶ Date of Last Valuation	01/15
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$11.0 B
▶ Total Pension Appropriation (Fiscal 2015)	\$630.8 M

	ACTIVE	RETIRED
▶ Number of Members	88,508	57,774
▶ Total Payroll/Benefit	\$5.6 B	\$1.8 B
▶ Average Salary/Benefit	\$63,200	\$30,800
▶ Average Age	47	72
▶ Average Service	13.2 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	3306
▶ Number Who Reported Earnings	863
▶ Number of Excess Earners	41
▶ Total Amount of Refund Due	\$419,925.45

▶ 2014 Return	8.26%
▶ 2014 Market Value	\$23.6 B
▶ 2010-2014 (Annualized)	10.16%
▶ 1985-2014 (Annualized)	9.69%

Stoneham

Town Hall
35 Central Street
Stoneham, MA 02180-2087
Phone 781-279-2635
Fax 781-438-6906

Board Members

Janice T. Houghton (Chairperson),
Ronald Florino, James J. McDermott, Jr.,
John Scullin, Kathleen Sullivan

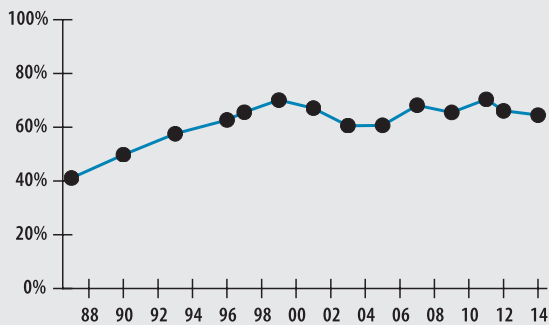
Board Administrator

Karen DeAngelis

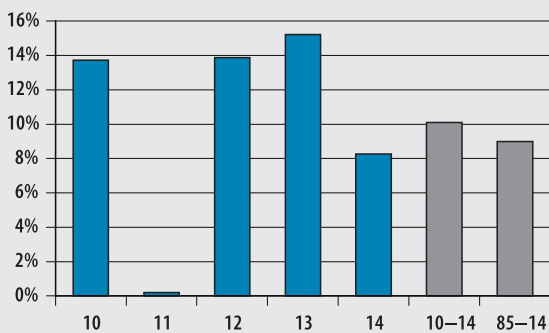
Board Meeting

Last Tuesday of each month at 2:00 pm

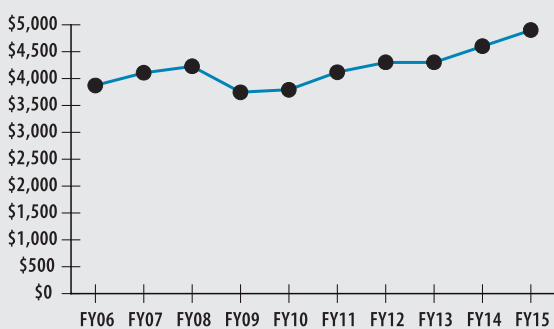
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.00%

29 years 2013
9.03%

28 years 2012
8.81%

10 years 2014
7.10%

10 years 2013
7.69%

10 years 2012
8.68%

5 years 2014
10.11%

5 years 2013
11.96%

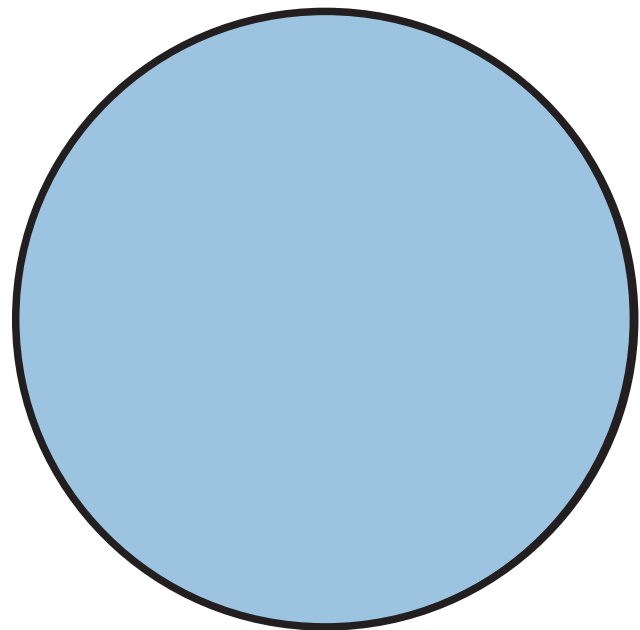
5 years 2012
1.55%

ACTUARIAL

▶ Funded Ratio	64.5%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	7.85% Total Increasing
▶ Year Fully Funded	2023
▶ Unfunded Liability	\$36.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$4.9 M

	ACTIVE	RETIRED
▶ Number of Members	273	285
▶ Total Payroll/Benefit	\$12.8 M	\$6.8 M
▶ Average Salary/Benefit	\$47,000	\$23,800
▶ Average Age	50	75
▶ Average Service	12.9 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	20
▶ Number Who Reported Earnings	6
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.26%
▶ 2014 Market Value	\$73.8 M
▶ 2010-2014 (Annualized)	10.11%
▶ 1985-2014 (Annualized)	9.00%

Board Members

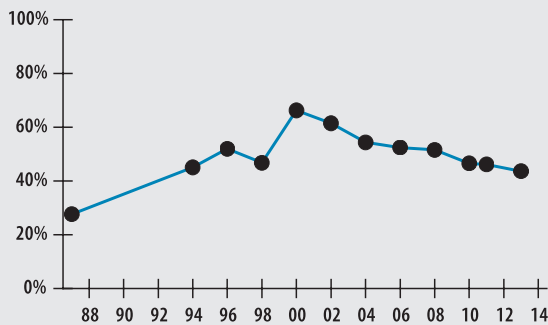
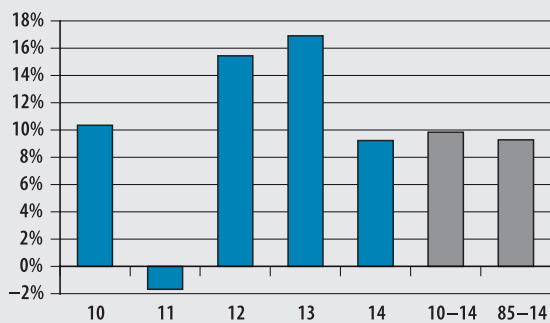
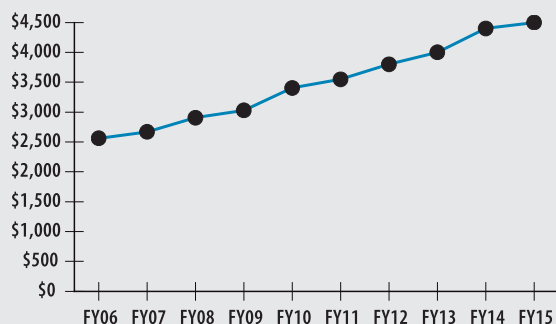
Francis E. Delano, Jr., (Chairperson),
John F. Behen, Jr., David Castellarin,
Thomas H. Driscoll, Jr., Esq., John T. Kiely, Jr.

Board Administrator

Jeanne Darcy

Board Meeting

Last Tuesday of the month

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY

30 years 2014
9.29%

29 years 2013
9.29%

28 years 2012
9.03%

10 years 2014
6.54%

10 years 2013
6.79%

10 years 2012
6.63%

5 years 2014
9.85%

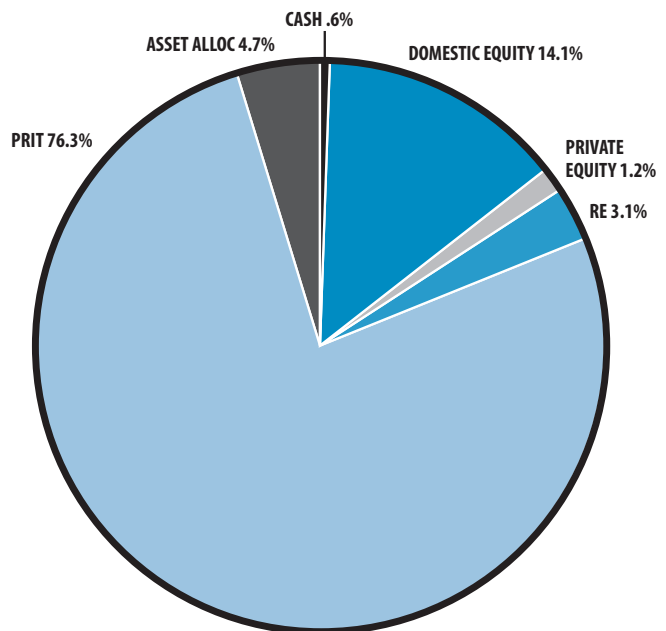
5 years 2013
10.68%

5 years 2012
1.76%

ACTUARIAL

▶ Funded Ratio	43.7%
▶ Date of Last Valuation	01/13
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	3.93% Increasing
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$43.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$4.5 M

	ACTIVE	RETIRED
▶ Number of Members	235	204
▶ Total Payroll/Benefit	\$11.2 M	\$4.7 M
▶ Average Salary/Benefit	\$47,600	\$23,000
▶ Average Age	50	74
▶ Average Service	13.5 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	18
▶ Number Who Reported Earnings	6
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$28,838.13

▶ 2014 Return	9.23%
▶ 2014 Market Value	\$44.5 M
▶ 2010-2014 (Annualized)	9.85%
▶ 1985-2014 (Annualized)	9.29%

Board Members

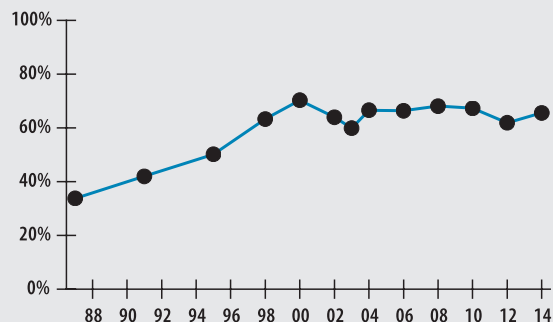
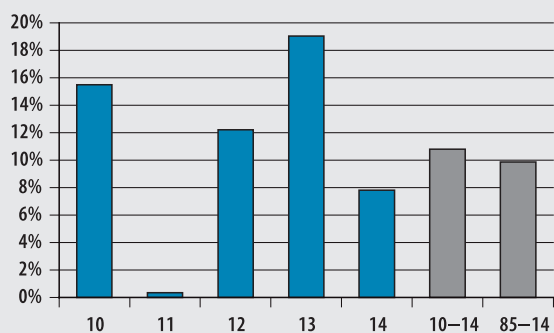
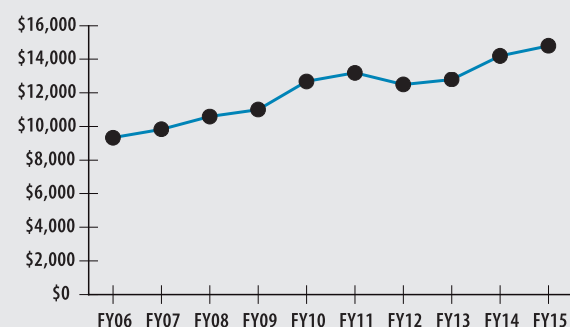
Ann Marie Hebert (Chairperson),
Barry Amaral, Peter H. Corr, Gill E. Enos,
Dennis M. Smith

Board Administrator

Paul J. Slivinski

Board Meeting

Varies

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

9.87%

29 years 2013

9.95%

28 years 2012

9.63%

10 years 2014

6.98%

10 years 2013

7.40%

10 years 2012

7.47%

5 years 2014

10.80%

5 years 2013

13.22%

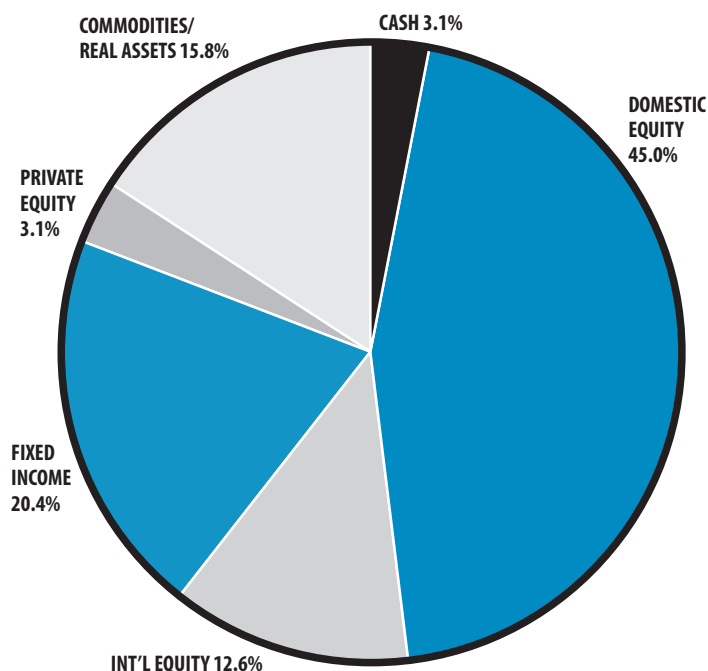
5 years 2012

3.41%

ACTUARIAL

▶ Funded Ratio	65.6%
▶ Date of Last Valuation	01/14
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.5% Increasing
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$125.4 M
▶ Total Pension Appropriation (Fiscal 2015)	\$14.8 M

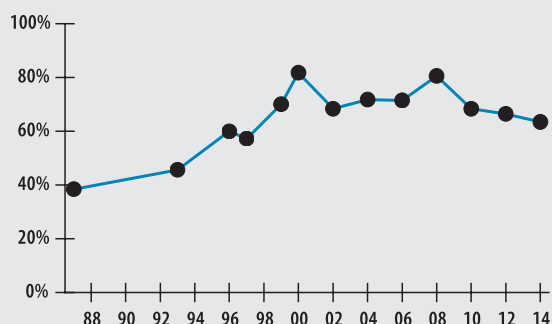
	ACTIVE	RETIRED
▶ Number of Members	1,069	806
▶ Total Payroll/Benefit	\$55.5 M	\$20.7 M
▶ Average Salary/Benefit	\$51,900	\$25,700
▶ Average Age	NA	73
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

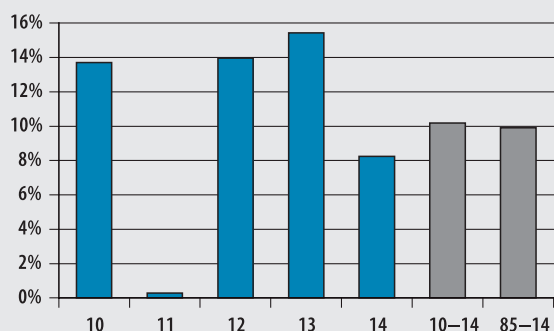
▶ Number of Disability Retirees	79
▶ Number Who Reported Earnings	20
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	7.82%
▶ 2014 Market Value	\$263.1 M
▶ 2010-2014 (Annualized)	10.80%
▶ 1985-2014 (Annualized)	9.87%

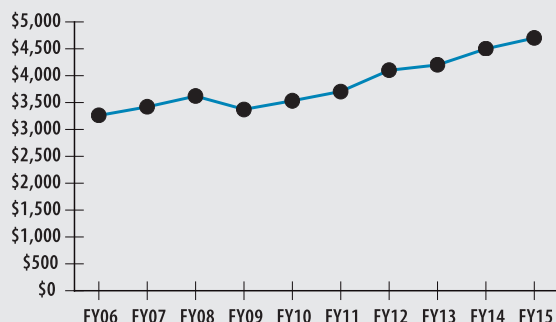
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.90%

29 years 2013
9.96%

28 years 2012
9.77%

10 years 2014
7.12%

10 years 2013
7.71%

10 years 2012
8.68%

5 years 2014
10.18%

5 years 2013
12.06%

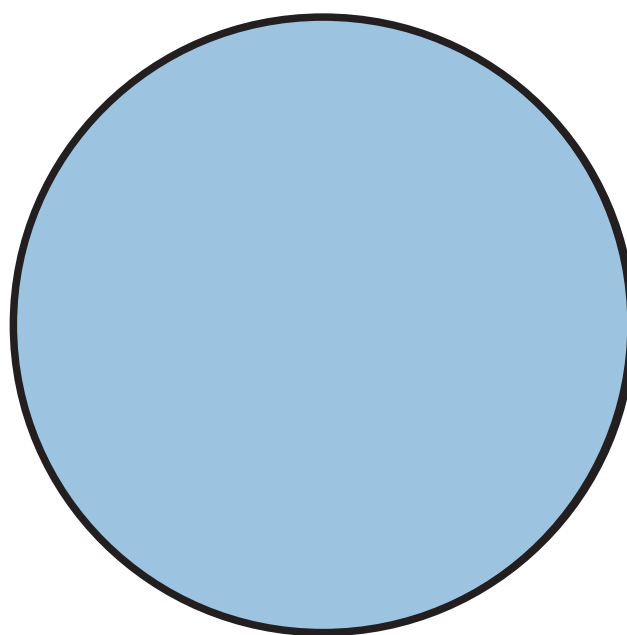
5 years 2012
1.53%

ACTUARIAL

▶ Funded Ratio	63.5%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2035
▶ Unfunded Liability	\$53.8 M
▶ Total Pension Appropriation (Fiscal 2015)	\$4.7 M

	ACTIVE	RETIRED
▶ Number of Members	429	367
▶ Total Payroll/Benefit	\$21.3 M	\$9.2 M
▶ Average Salary/Benefit	\$49,600	\$25,100
▶ Average Age	48	74
▶ Average Service	12.4 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	33
▶ Number Who Reported Earnings	10
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.25%
▶ 2014 Market Value	\$104.4 M
▶ 2010-2014 (Annualized)	10.18%
▶ 1985-2014 (Annualized)	9.90%

Waltham

610 Main Street
Waltham, MA 02452
Phone 781-314-3230
Fax 781-314-3236

Board Members

William R. MacDonald (Chairperson),
Paul G. Centofanti, Scott Hovsepian,
Thomas J. Magno, William F. Wiggin

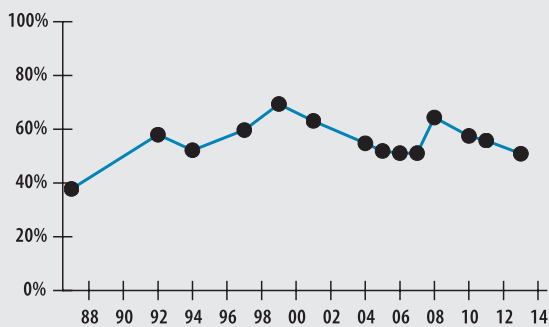
Board Administrator

Joseph F. Juppé

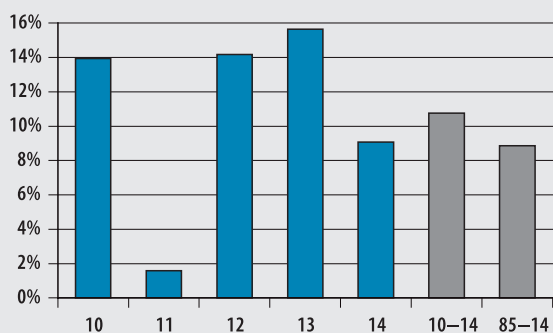
Board Meeting

Varies

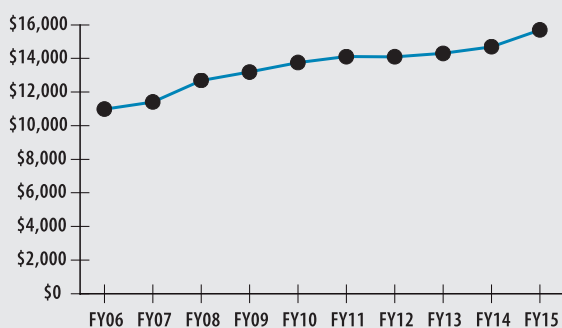
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.86%

29 years 2013

8.86%

28 years 2012

8.62%

10 years 2014

6.14%

10 years 2013

6.37%

10 years 2012

6.95%

5 years 2014

10.76%

5 years 2013

10.66%

5 years 2012

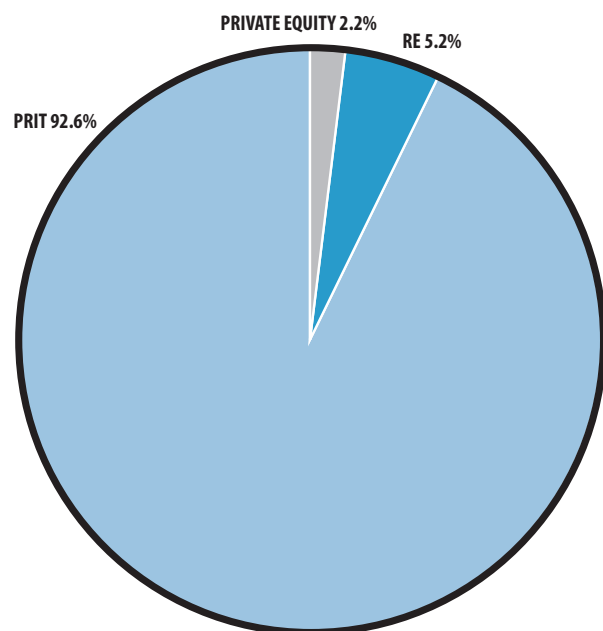
1.57%

ACTUARIAL

▶ Funded Ratio	50.9%
▶ Date of Last Valuation	01/13
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.25%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2035
▶ Unfunded Liability	\$159.1 M
▶ Total Pension Appropriation (Fiscal 2015)	\$15.7 M

	ACTIVE	RETIRED
▶ Number of Members	887	773
▶ Total Payroll/Benefit	\$50.7 M	\$21.3 M
▶ Average Salary/Benefit	\$57,200	\$27,500
▶ Average Age	NA	73
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	79
▶ Number Who Reported Earnings	24
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	9.07%
▶ 2014 Market Value	\$202.3 M
▶ 2010-2014 (Annualized)	10.76%
▶ 1985-2014 (Annualized)	8.86%

Watertown

P. O. Box 199, 149 Main Street
Watertown, MA 02471-0199
Phone 617-972-6456,
888-972-6456 (toll free)
Fax 617-923-3531

Board Members

Thomas V. Thibaut, Jr. (Chairperson),
Domenic D. Arone, Kathleen Kiely-Becchetti,
John T. Loughran, Thomas J. Tracy

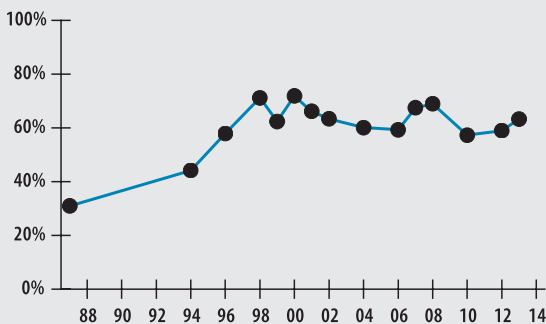
Board Administrator

Barbara A. Sheehan

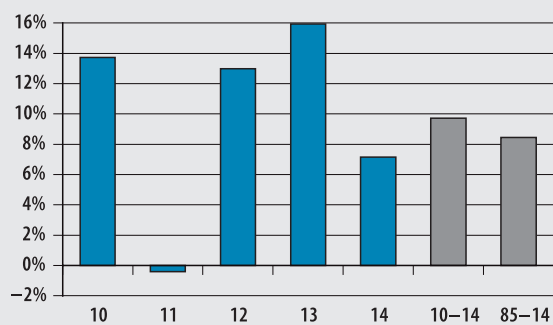
Board Meeting

Varies

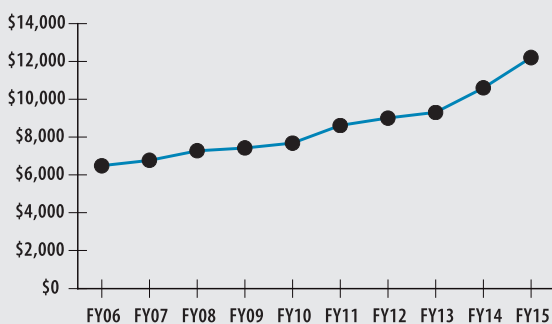
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

8.46%

29 years 2013

8.51%

28 years 2012

8.25%

10 years 2014

6.11%

10 years 2013

6.62%

10 years 2012

7.08%

5 years 2014

9.72%

5 years 2013

11.67%

5 years 2012

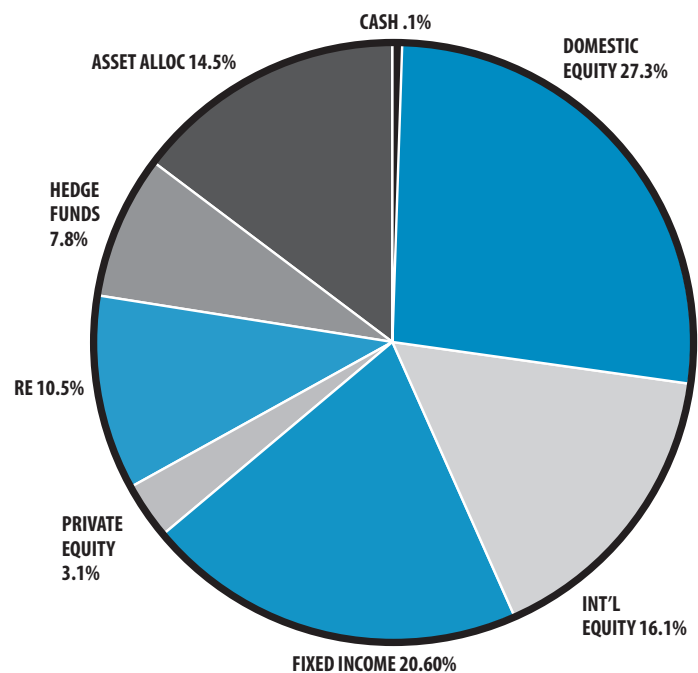
2.04%

ACTUARIAL

▶ Funded Ratio	63.3%
▶ Date of Last Valuation	01/13
▶ Actuary	Sherman Actuarial Services, LLC
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	Varies Total Increasing
▶ Year Fully Funded	2019
▶ Unfunded Liability	\$60.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$12.2 M

	ACTIVE	RETIRED
▶ Number of Members	533	405
▶ Total Payroll/Benefit	\$27.3 M	\$10.6 M
▶ Average Salary/Benefit	\$51,200	\$26,100
▶ Average Age	NA	76
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)

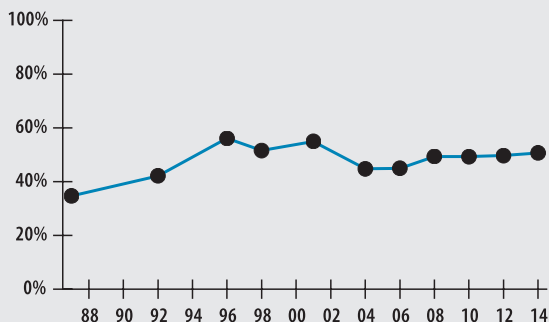


EARNED INCOME OF DISABILITY RETIREES (2013)

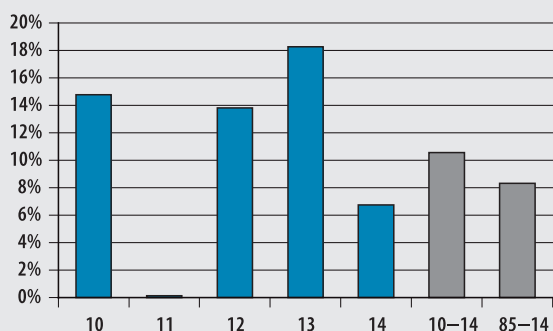
▶ Number of Disability Retirees	38
▶ Number Who Reported Earnings	10
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	7.16%
▶ 2014 Market Value	\$134.4 M
▶ 2010-2014 (Annualized)	9.72%
▶ 1985-2014 (Annualized)	8.46%

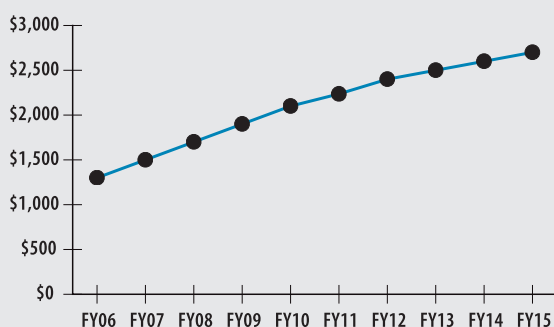
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

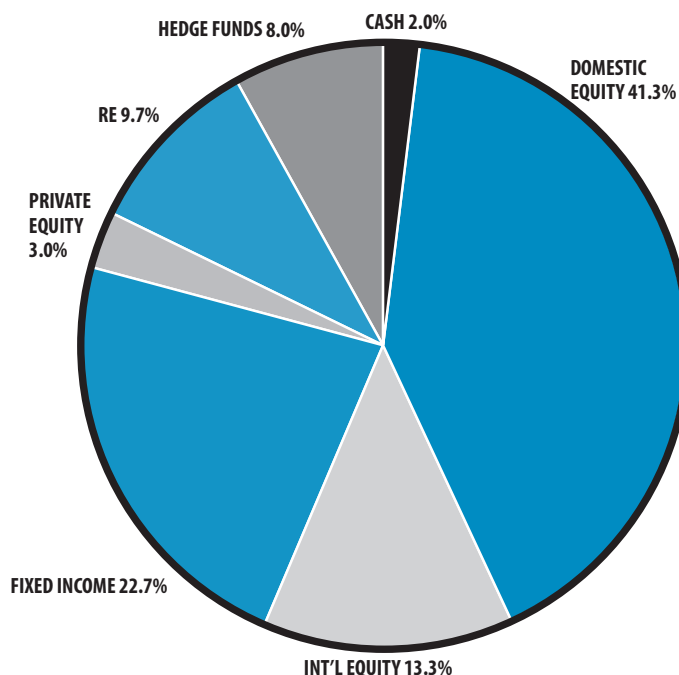
30 years 2014 8.32%	29 years 2013 8.38%	28 years 2012 8.04%
10 years 2014 6.84%	10 years 2013 7.62%	10 years 2012 7.43%
5 years 2014 10.57%	5 years 2013 13.67%	5 years 2012 3.15%

ACTUARIAL

▶ Funded Ratio	50.7%
▶ Date of Last Valuation	01/14
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	6.0% Total Increasing
▶ Year Fully Funded	2029
▶ Unfunded Liability	\$25.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$2.7 M

	ACTIVE	RETIRED
▶ Number of Members	264	134
▶ Total Payroll/Benefit	\$10.1 M	\$2.7 M
▶ Average Salary/Benefit	\$38,200	\$20,300
▶ Average Age	46	73
▶ Average Service	10.8 years	NA

ASSET ALLOCATION (12/31/14)

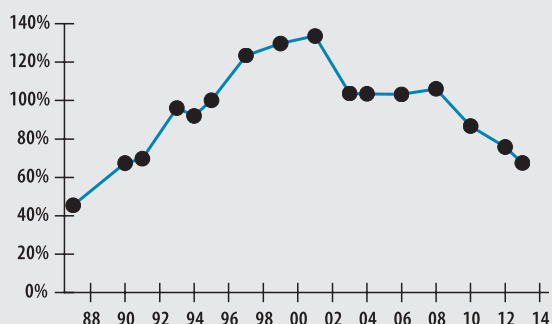


EARNED INCOME OF DISABILITY RETIREES (2013)

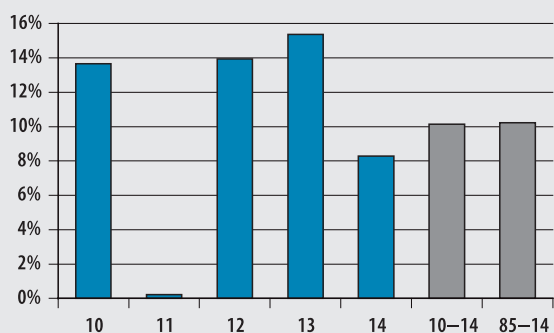
▶ Number of Disability Retirees	9
▶ Number Who Reported Earnings	2
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	6.76%
▶ 2014 Market Value	\$30.7 M
▶ 2010-2014 (Annualized)	10.57%
▶ 1985-2014 (Annualized)	8.32%

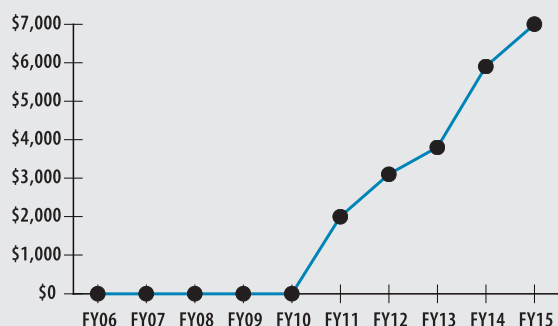
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
10.22%

29 years 2013
10.29%

28 years 2012
10.11%

10 years 2014
6.46%

10 years 2013
6.88%

10 years 2012
7.37%

5 years 2014
10.15%

5 years 2013
12.02%

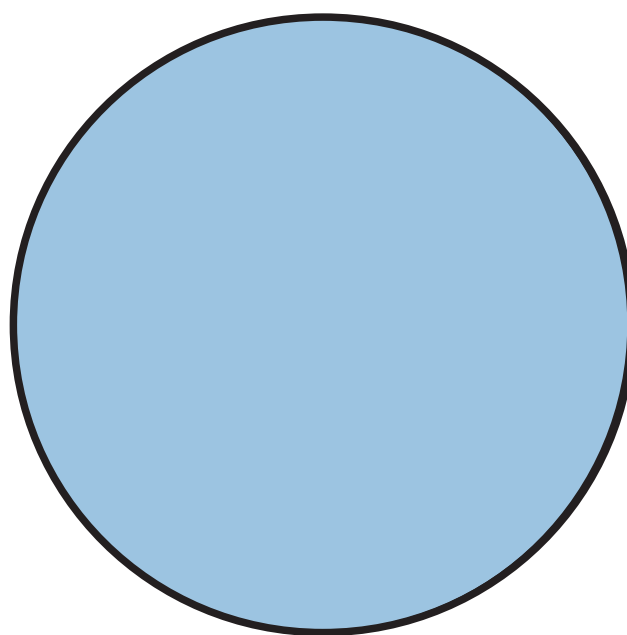
5 years 2012
1.55%

ACTUARIAL

▶ Funded Ratio	67.5%
▶ Date of Last Valuation	01/13
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.00%
▶ Funding Schedule	3.5% Increasing Phase-in
▶ Year Fully Funded	2030
▶ Unfunded Liability	\$60.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$7.0 M

	ACTIVE	RETIRED
▶ Number of Members	668	407
▶ Total Payroll/Benefit	\$34.0 M	\$9.6 M
▶ Average Salary/Benefit	\$51,000	\$23,500
▶ Average Age	46	NA
▶ Average Service	10.8 years	NA

ASSET ALLOCATION (12/31/14)



PRIT 100%

EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	33
▶ Number Who Reported Earnings	9
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$6,149.28

▶ 2014 Return	8.29%
▶ 2014 Market Value	\$152.8 M
▶ 2010-2014 (Annualized)	10.15%
▶ 1985-2014 (Annualized)	10.22%

West Springfield

26 Central Street
Suite 26
West Springfield, MA 01089-2766
Phone 413-495-1891 x.1019
Fax 413-263-3198

Board Members

Richard S. Sullivan (Chairperson),
Gerard P. Connor, Jr., Thomas J. Cummings,
Gwen E. Keough, Sharon Wilcox

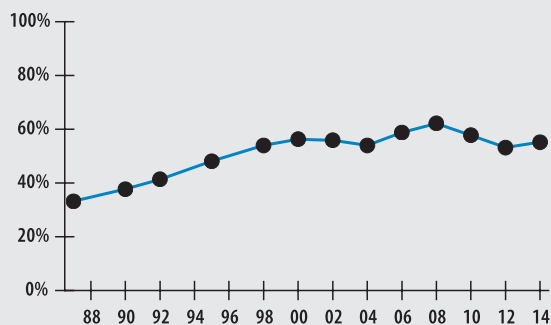
Board Administrator

James Lovotti

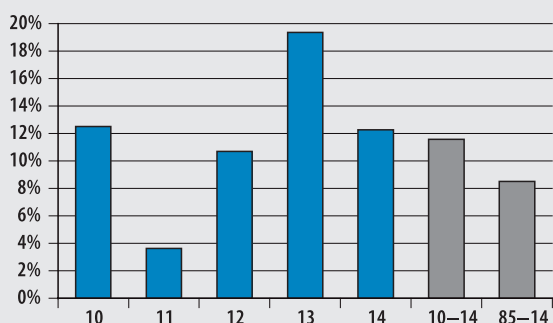
Board Meeting

Varies

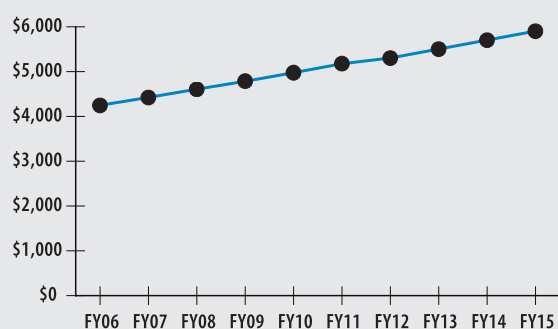
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
8.52%

29 years 2013
8.39%

28 years 2012
8.02%

10 years 2014
6.89%

10 years 2013
6.79%

10 years 2012
6.44%

5 years 2014
11.59%

5 years 2013
11.88%

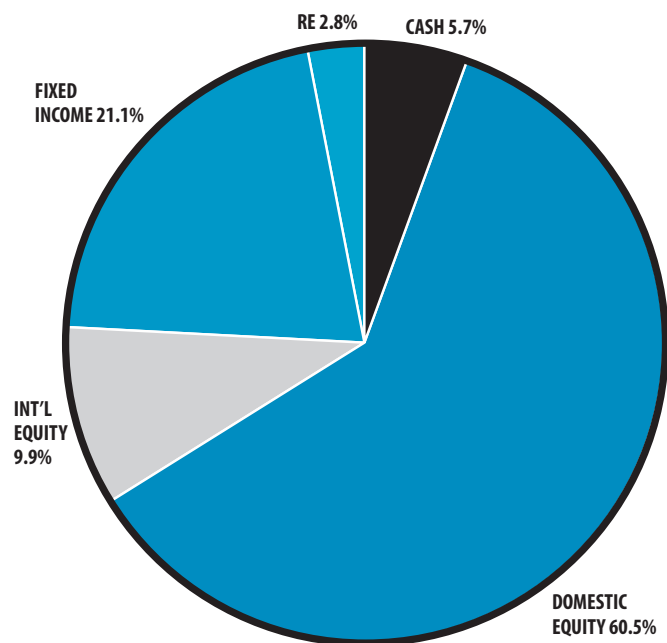
5 years 2012
2.77%

ACTUARIAL

▶ Funded Ratio	55.2%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	4.0% Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$69.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.9 M

	ACTIVE	RETIRED
▶ Number of Members	569	390
▶ Total Payroll/Benefit	\$23.8 M	\$8.2 M
▶ Average Salary/Benefit	\$41,800	\$21,100
▶ Average Age	48	73
▶ Average Service	12.4 years	NA

ASSET ALLOCATION (12/31/14)

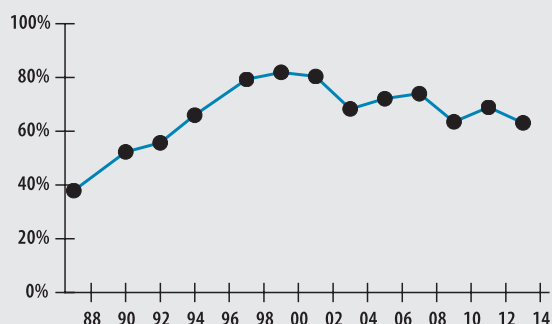


EARNED INCOME OF DISABILITY RETIREES (2013)

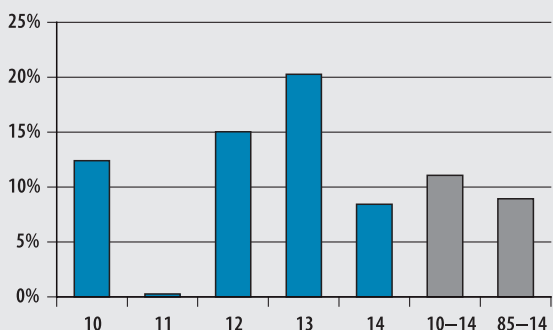
▶ Number of Disability Retirees	34
▶ Number Who Reported Earnings	12
▶ Number of Excess Earners	1
▶ Total Amount of Refund Due	\$49,423.80

▶ 2014 Return	12.29%
▶ 2014 Market Value	\$101.1 M
▶ 2010-2014 (Annualized)	11.59%
▶ 1985-2014 (Annualized)	8.52%

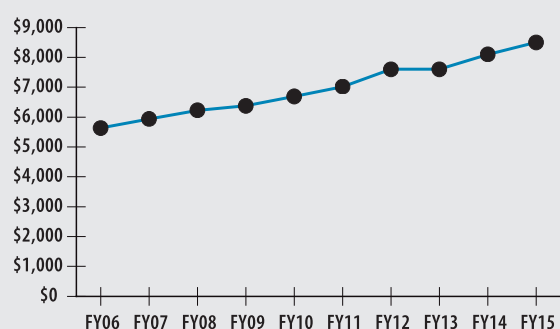
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

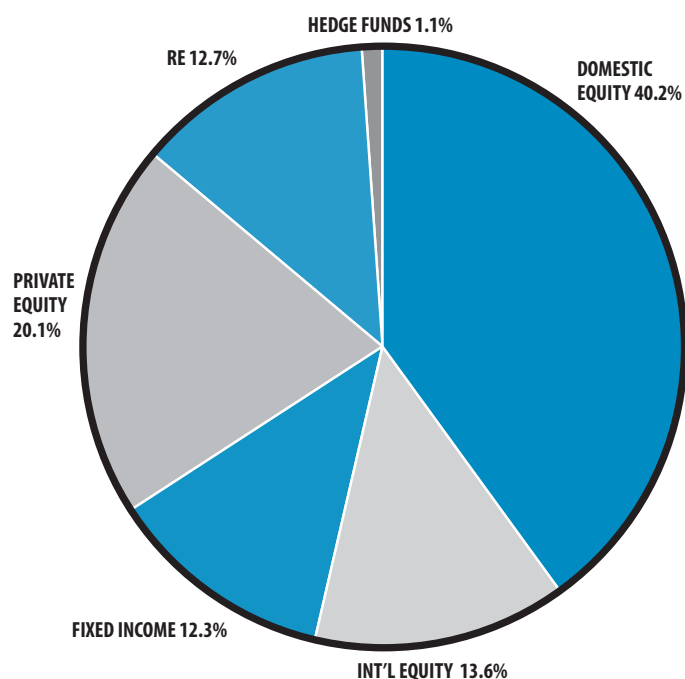
30 years 2014 8.95%	29 years 2013 8.97%	28 years 2012 8.59%
10 years 2014 6.96%	10 years 2013 7.27%	10 years 2012 7.21%
5 years 2014 11.08%	5 years 2013 13.64%	5 years 2012 3.41%

ACTUARIAL

▶ Funded Ratio	63.1%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	5.0% Total Increasing
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$88.7 M
▶ Total Pension Appropriation (Fiscal 2015)	\$8.5 M

	ACTIVE	RETIRED
▶ Number of Members	860	604
▶ Total Payroll/Benefit	\$35.6 M	\$13.6 M
▶ Average Salary/Benefit	\$41,400	\$22,600
▶ Average Age	48	72
▶ Average Service	12.3 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	52
▶ Number Who Reported Earnings	13
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.44%
▶ 2014 Market Value	\$196.0 M
▶ 2010-2014 (Annualized)	11.08%
▶ 1985-2014 (Annualized)	8.95%

Weymouth

807 Broad Street
Weymouth, MA 02189
Phone 781-331-8721
Fax 781-331-3005

Board Members

Greg Hargadon (Chairperson),
Joseph A. Connolly, Patrice A. Cook,
Joseph L. Davis, Richard Hayes

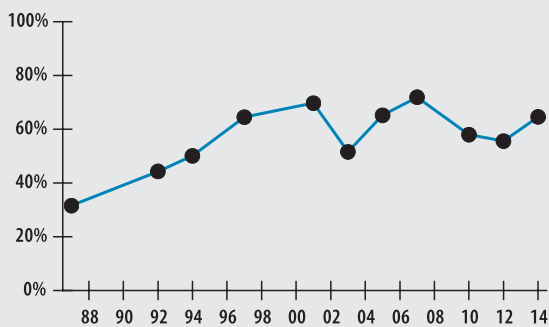
Board Administrator

Jo-Ann Anti

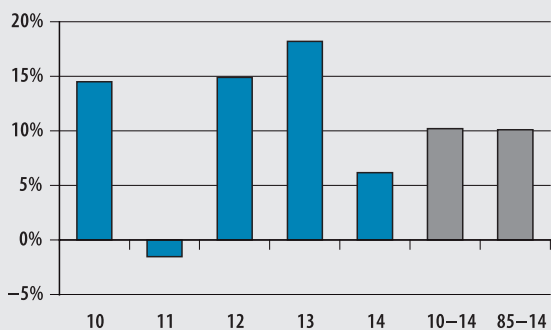
Board Meeting

Third Monday of each month,
unless otherwise posted

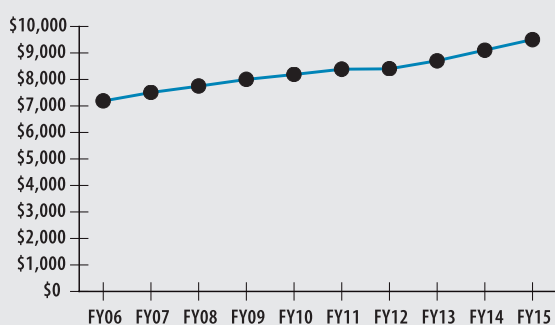
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

10.12%

29 years 2013

10.26%

28 years 2012

9.99%

10 years 2014

6.81%

10 years 2013

7.62%

10 years 2012

8.29%

5 years 2014

10.22%

5 years 2013

13.29%

5 years 2012

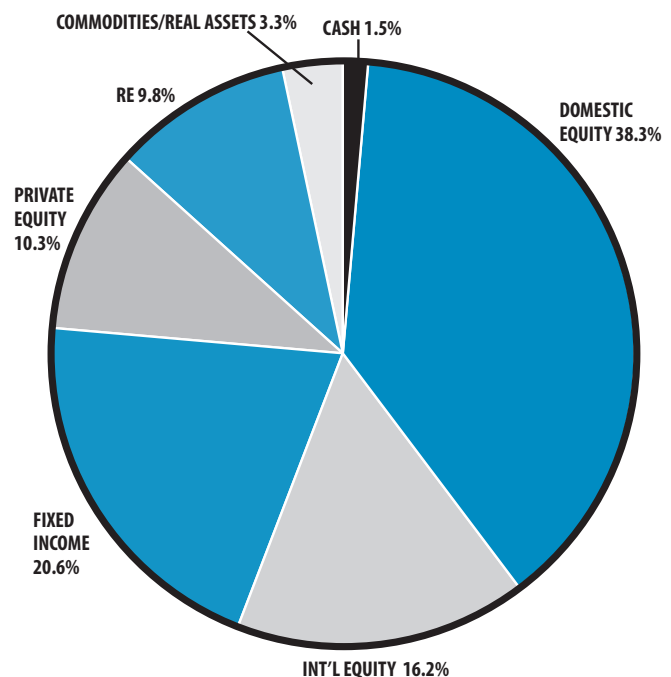
2.61%

ACTUARIAL

▶ Funded Ratio	64.6%
▶ Date of Last Valuation	01/14
▶ Actuary	Stone Consulting
▶ Assumed Rate of Return	7.88%
▶ Funding Schedule	3.1% Increasing
▶ Year Fully Funded	2032
▶ Unfunded Liability	\$90.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$9.5 M

	ACTIVE	RETIRED
▶ Number of Members	823	624
▶ Total Payroll/Benefit	\$35.8 M	\$16.0 M
▶ Average Salary/Benefit	\$43,500	\$25,700
▶ Average Age	49	73
▶ Average Service	11.6 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	80
▶ Number Who Reported Earnings	25
▶ Number of Excess Earners	2
▶ Total Amount of Refund Due	\$1,719.69

▶ 2014 Return	6.18%
▶ 2014 Market Value	\$175.4 M
▶ 2010-2014 (Annualized)	10.22%
▶ 1985-2014 (Annualized)	10.12%

Board Members

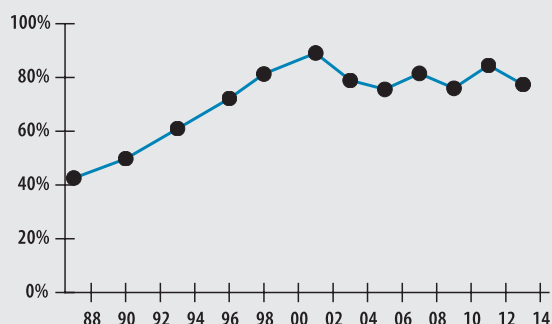
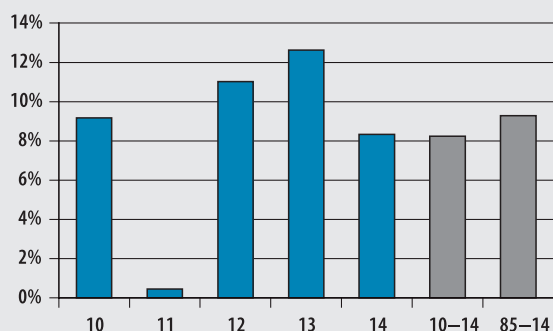
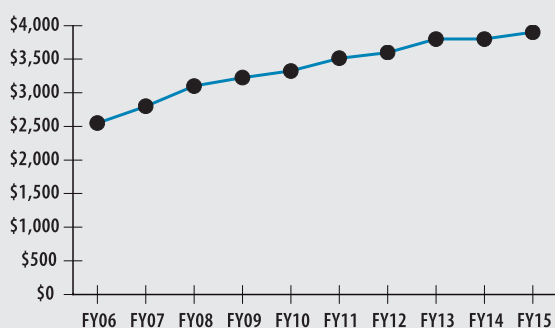
George F. Morrissey, Esq., (Chairperson),
Paul J. DeLuca, James B. Gray, Stacie Ward,
William Zink

Board Administrator

Karen Manchuso

Board Meeting

Varies

FUNDED RATIO (1987-2014)

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)

10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)

INVESTMENT RETURN HISTORY
30 years 2014

9.28%

29 years 2013

9.31%

28 years 2012

9.19%

10 years 2014

6.34%

10 years 2013

6.75%

10 years 2012

7.73%

5 years 2014

8.24%

5 years 2013

10.07%

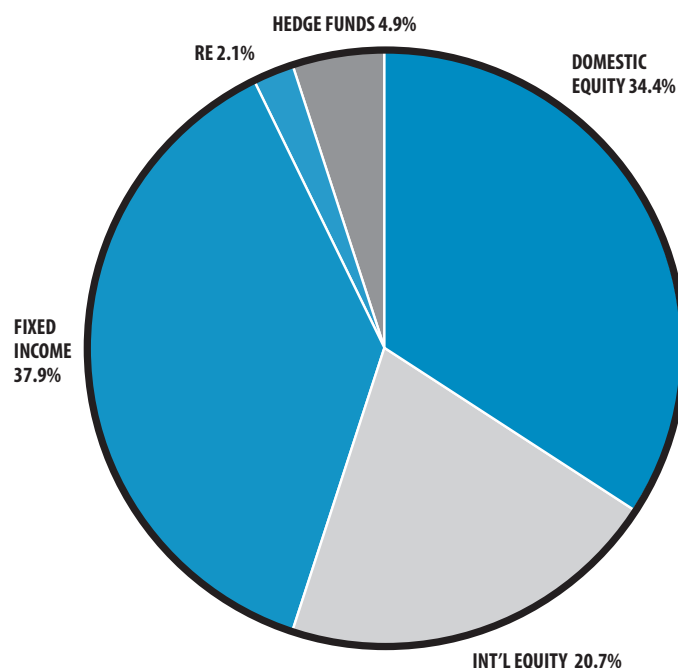
5 years 2012

1.28%

ACTUARIAL

▶ Funded Ratio	77.4%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	2.5% Increasing
▶ Year Fully Funded	2029
▶ Unfunded Liability	\$25.5 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.9 M

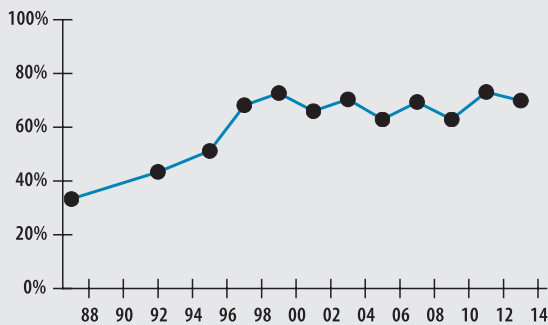
	ACTIVE	RETIRED
▶ Number of Members	366	278
▶ Total Payroll/Benefit	\$18.0 M	\$6.2 M
▶ Average Salary/Benefit	\$49,100	\$22,400
▶ Average Age	49	76
▶ Average Service	13.5 years	NA

ASSET ALLOCATION (12/31/14)

EARNED INCOME OF DISABILITY RETIREES (2013)

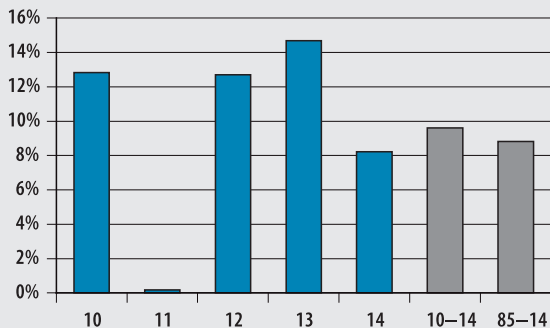
▶ Number of Disability Retirees	22
▶ Number Who Reported Earnings	4
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.34%
▶ 2014 Market Value	\$103.7 M
▶ 2010-2014 (Annualized)	8.24%
▶ 1985-2014 (Annualized)	9.28%

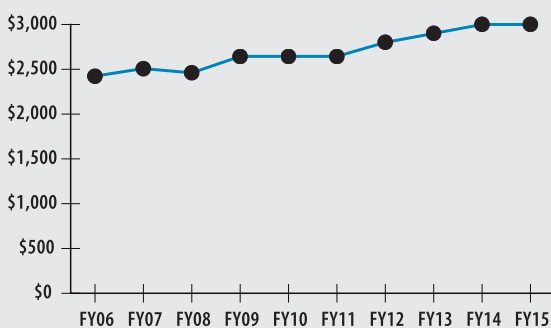
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

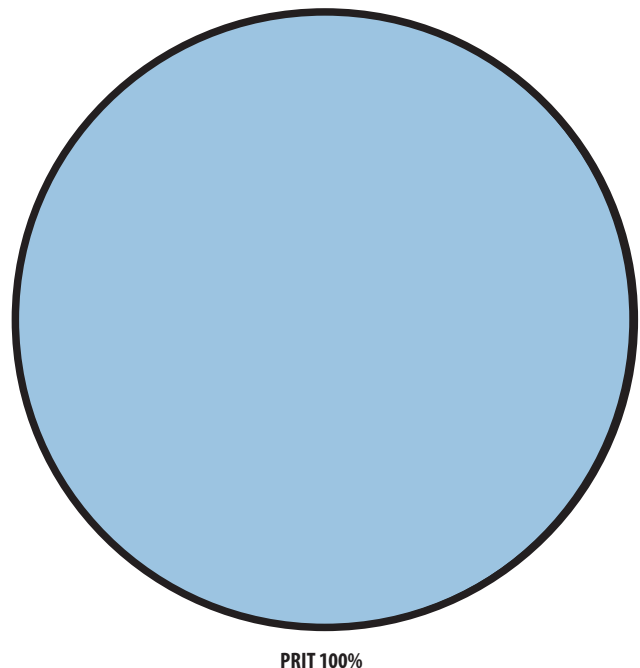
30 years 2014 8.83%	29 years 2013 8.85%	28 years 2012 8.65%
10 years 2014 6.80%	10 years 2013 7.19%	10 years 2012 7.78%
5 years 2014 9.60%	5 years 2013 11.30%	5 years 2012 1.39%

ACTUARIAL

▶ Funded Ratio	69.9%
▶ Date of Last Valuation	01/13
▶ Actuary	PERAC
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	2.0% Increasing
▶ Year Fully Funded	2028
▶ Unfunded Liability	\$18.9 M
▶ Total Pension Appropriation (Fiscal 2015)	\$3.0 M

	ACTIVE	RETIRED
▶ Number of Members	228	179
▶ Total Payroll/Benefit	\$10.2 M	\$3.4 M
▶ Average Salary/Benefit	\$44,700	\$19,100
▶ Average Age	50	74
▶ Average Service	13.5 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	14
▶ Number Who Reported Earnings	3
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	8.23%
▶ 2014 Market Value	\$54.7 M
▶ 2010-2014 (Annualized)	9.60%
▶ 1985-2014 (Annualized)	8.83%

Woburn

City Hall, Second Floor
10 Common Street
Woburn, MA 01801-4139
Phone 781-897-5820
Fax 781-897-5824

Board Members

Gerald W. Surette (Chairperson),
Denis P. Devine, A. John Flaherty,
Michael J. Gorman, Marilou E. Lundin

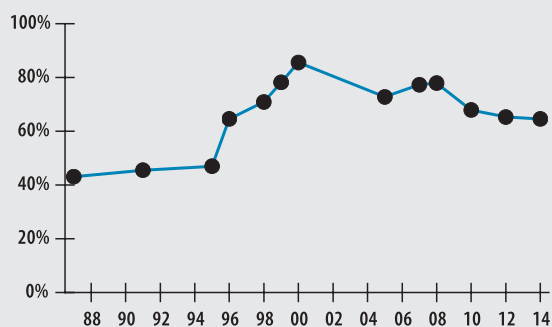
Board Administrator

Maureen T. Marcucci

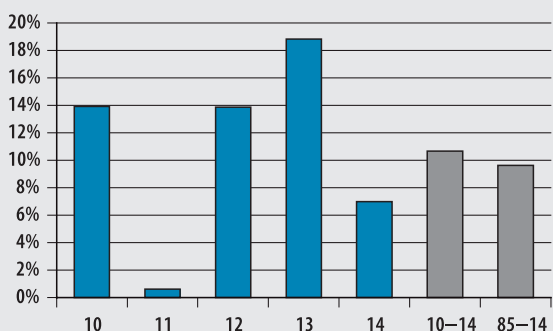
Board Meeting

Varies

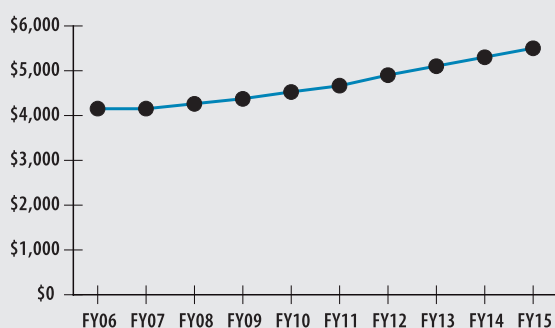
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014

9.63%

29 years 2013

9.72%

28 years 2012

9.41%

10 years 2014

7.24%

10 years 2013

7.71%

10 years 2012

8.16%

5 years 2014

10.67%

5 years 2013

13.69%

5 years 2012

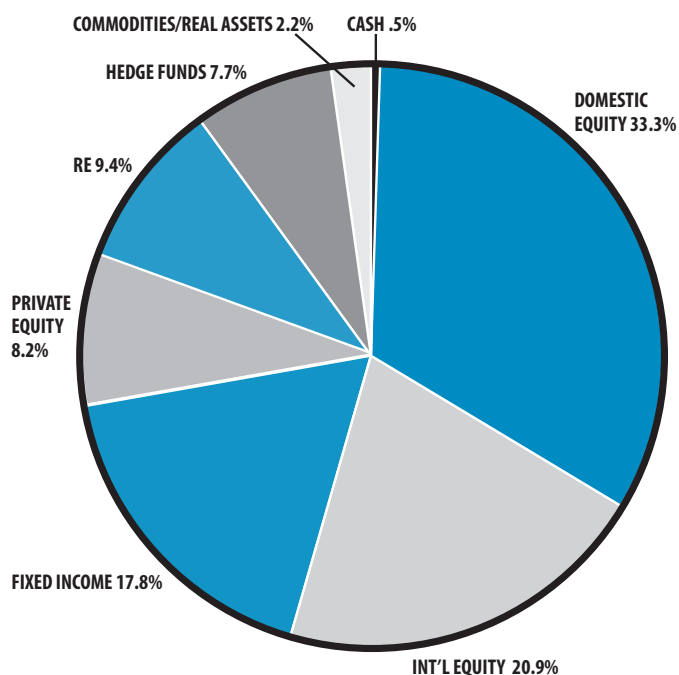
3.24%

ACTUARIAL

▶ Funded Ratio	64.6%
▶ Date of Last Valuation	01/14
▶ Actuary	Buck Consultants
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2036
▶ Unfunded Liability	\$63.6 M
▶ Total Pension Appropriation (Fiscal 2015)	\$5.5 M

	ACTIVE	RETIRED
▶ Number of Members	578	400
▶ Total Payroll/Benefit	\$28.9 M	\$9.3 M
▶ Average Salary/Benefit	\$50,100	\$23,300
▶ Average Age	NA	74
▶ Average Service	NA	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	26
▶ Number Who Reported Earnings	11
▶ Number of Excess Earners	0
▶ Total Amount of Refund Due	\$0

▶ 2014 Return	7.01%
▶ 2014 Market Value	\$129.5 M
▶ 2010-2014 (Annualized)	10.67%
▶ 1985-2014 (Annualized)	9.63%

Worcester

City Hall, Room 103
455 Main Street
Worcester, MA 01608
Phone 508-799-1062
Fax 508-799-1047

Board Members

Stephen F. Wentzell (Chairperson),
Elizabeth A. Early, John F. Mahan,
Robert V. Stearns, Thomas M. Wade

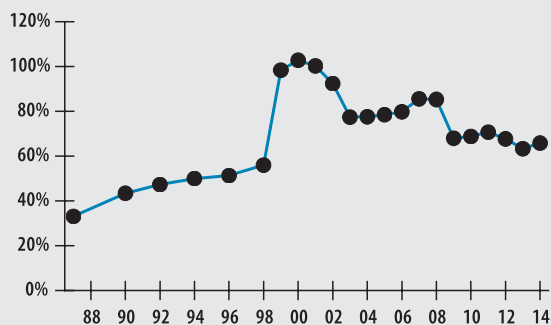
Board Administrator

Elizabeth A. Early

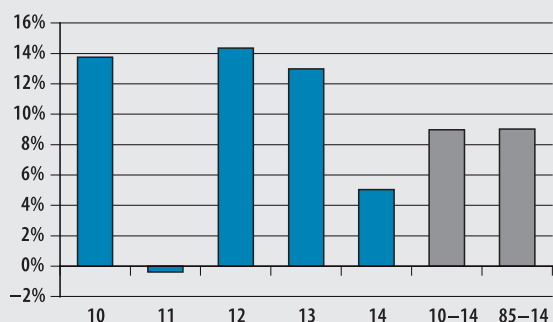
Board Meeting

Second and Third Thursday of each month

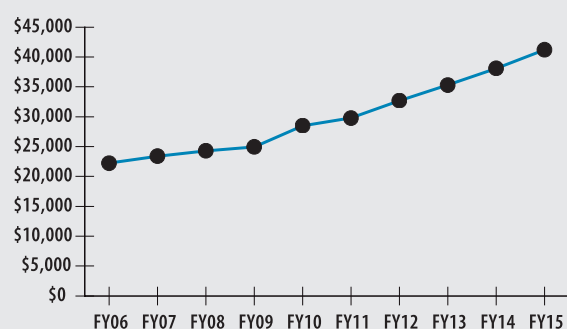
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

30 years 2014
9.03%

29 years 2013
9.18%

28 years 2012
9.04%

10 years 2014
6.38%

10 years 2013
7.14%

10 years 2012
8.27%

5 years 2014
8.99%

5 years 2013
11.97%

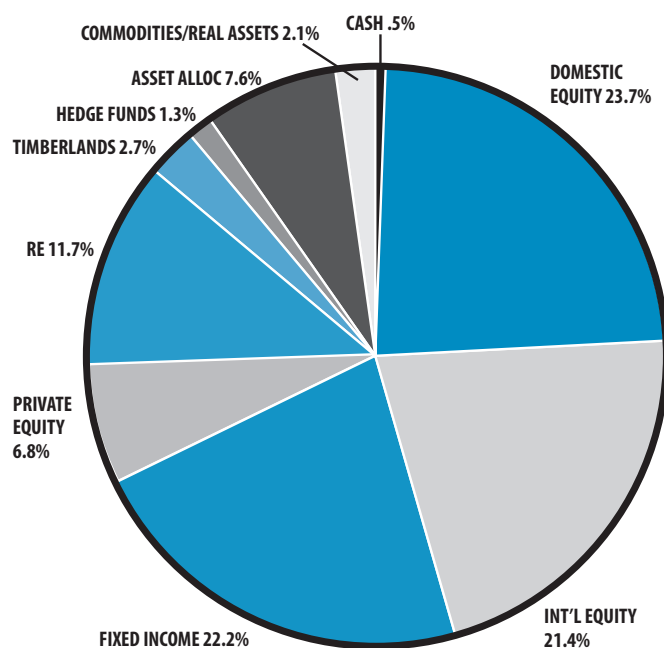
5 years 2012
2.53%

ACTUARIAL

▶ Funded Ratio	65.8%
▶ Date of Last Valuation	01/14
▶ Actuary	The Segal Company
▶ Assumed Rate of Return	7.75%
▶ Funding Schedule	4.0% Increasing
▶ Year Fully Funded	2031
▶ Unfunded Liability	\$400.3 M
▶ Total Pension Appropriation (Fiscal 2015)	\$41.2 M

	ACTIVE	RETIRED
▶ Number of Members	3,293	2,734
▶ Total Payroll/Benefit	\$168.9 M	\$68.1 M
▶ Average Salary/Benefit	\$51,300	\$24,900
▶ Average Age	47	NA
▶ Average Service	13.9 year	NA

ASSET ALLOCATION (12/31/14)

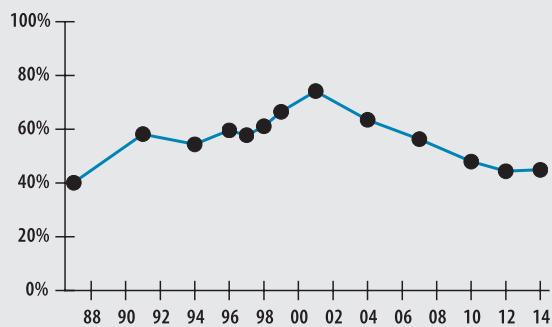


EARNED INCOME OF DISABILITY RETIREES (2013)

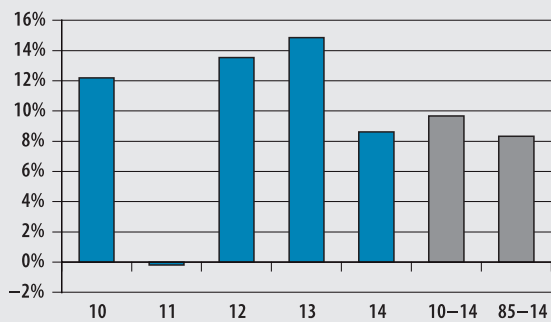
▶ Number of Disability Retirees	334
▶ Number Who Reported Earnings	78
▶ Number of Excess Earners	3
▶ Total Amount of Refund Due	\$5,429.87

▶ 2014 Return	5.05%
▶ 2014 Market Value	\$818.9 M
▶ 2010-2014 (Annualized)	8.99%
▶ 1985-2014 (Annualized)	9.03%

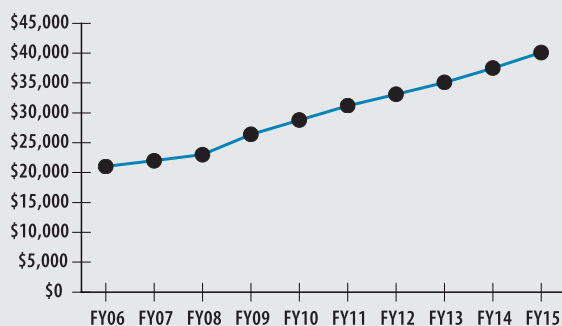
FUNDED RATIO (1987-2014)



INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



10-YEAR HISTORY OF APPROPRIATIONS (IN THOUSANDS)



INVESTMENT RETURN HISTORY

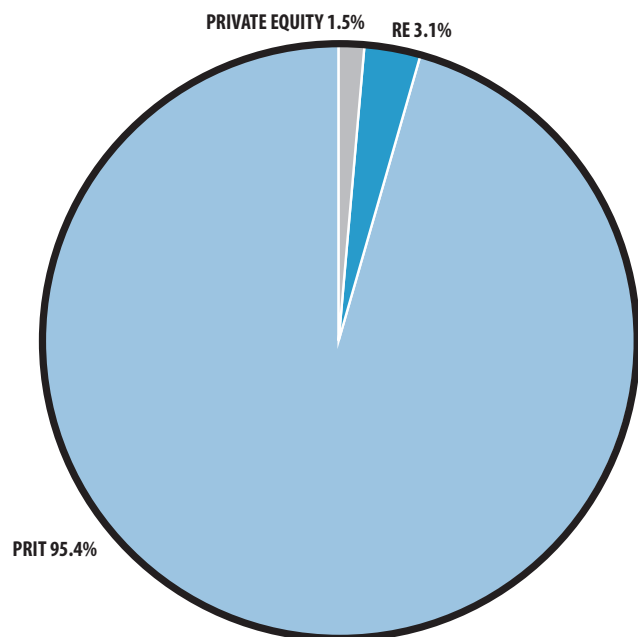
30 years 2014 8.34%	29 years 2013 8.33%	28 years 2012 8.10%
10 years 2014 5.49%	10 years 2013 5.59%	10 years 2012 5.73%
5 years 2014 9.67%	5 years 2013 10.57%	5 years 2012 1.08%

ACTUARIAL

▶ Funded Ratio	44.9%
▶ Date of Last Valuation	01/14
▶ Actuary	KMS Actuaries
▶ Assumed Rate of Return	8.00%
▶ Funding Schedule	4.0% Increasing Phase-in
▶ Year Fully Funded	2035
▶ Unfunded Liability	\$599.4 M
▶ Total Pension Appropriation (Fiscal 2015)	\$40.1 M

	ACTIVE	RETIRED
▶ Number of Members	6,411	3,087
▶ Total Payroll/Benefit	\$252.8 M	\$55.7 M
▶ Average Salary/Benefit	\$39,400	\$18,000
▶ Average Age	48	74
▶ Average Service	10.5 years	NA

ASSET ALLOCATION (12/31/14)



EARNED INCOME OF DISABILITY RETIREES (2013)

▶ Number of Disability Retirees	232
▶ Number Who Reported Earnings	87
▶ Number of Excess Earners	3
▶ Total Amount of Refund Due	\$14,730.98

▶ 2014 Return	8.63%
▶ 2013 Market Value	\$551.5 M
▶ 2010-2014 (Annualized)	9.67%
▶ 1985-2014 (Annualized)	8.34%

Board Members

Treasurer Deborah B. Goldberg (Chairperson),
Robert Brousseau, Ruth Ellen Fitch,
Michael J. Heffernan, Anthony E. Hubbard,
Theresa McGoldrick, Esq., Dennis Naughton,

Dana Pullman, Paul E. Shanley, Esq.

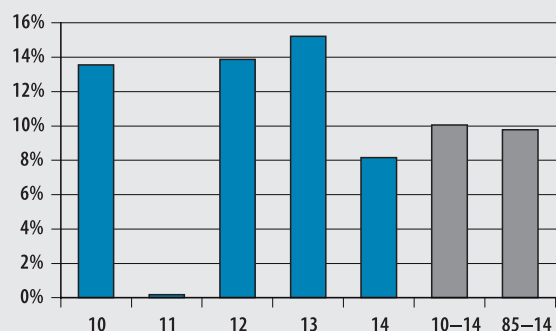
Board Administrator

Michael G. Trotsky, CFA

Board Meeting

Every other month, day and date varies

INVESTMENT RETURN (2010-2014, 5 YEAR AND 30 YEAR AVERAGES)



INVESTMENT RETURN HISTORY

30 years 2014
9.78%

29 years 2013
9.84%

28 years 2012
9.65%

10 years 2014
7.01%

10 years 2013
7.62%

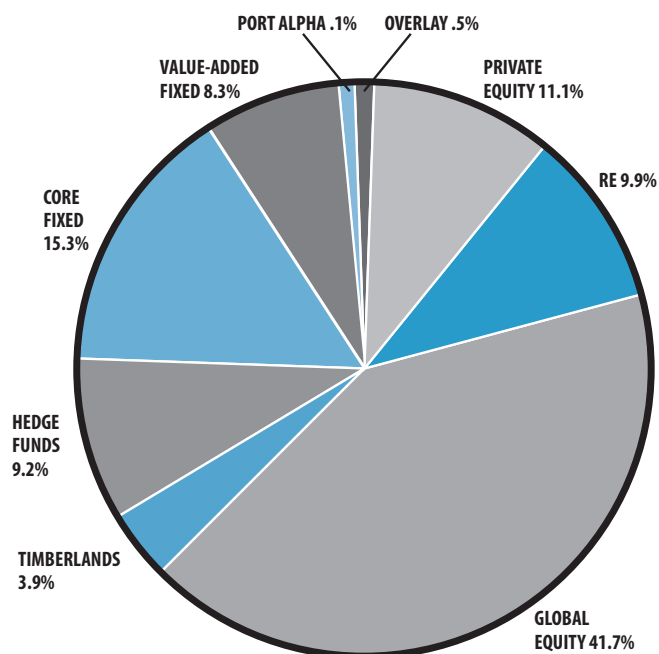
10 years 2012
8.61%

5 years 2014
10.05%

5 years 2013
11.90%

5 years 2012
1.43%

ASSET ALLOCATION (12/31/14)



▶ 2014 Return	8.16%
▶ 2014 Market Value	\$60.7 B
▶ 2010-2014 (Annualized)	10.05%
▶ 1985-2014 (Annualized)	9.78%

DISABILITY

RETIREMENT STATISTICS

(as of 12/31/14)

PHYSICIAN CME/RTS REVIEWS
DISABILITY NURSE CME REVIEWS
ACCIDENTAL DEATH APPROVALS
DISABILITY RETIREMENT APPROVALS
DISABILITY PANEL REQUESTS

RETIREMENT BOARDS WITH 40–399 ACTIVE MEMBERS					
Adams Retirement Board	0	0	0	1	0
Amesbury Retirement Board	0	0	0	1	0
Blue Hills Regional School Retirement Board	0	0	0	0	0
Clinton Retirement Board	1	0	0	1	0
Easthampton Retirement Board	3	1	0	3	0
Fairhaven Retirement Board	1	1	1	3	0
Gardner Retirement Board	1	0	0	3	0
Gr. Lawrence Sanitary District Retirement Board	0	0	0	0	0
Hull Retirement Board	1	0	0	2	0
Mass Housing Finance Agency Retirement Board	0	0	0	0	0
Maynard Retirement Board	0	0	0	1	0
Milton Retirement Board	1	0	0	1	0
Minuteman Regional School District Ret. Board	0	0	0	0	0
Montague Retirement Board	0	0	0	2	0
Newburyport Retirement Board	2	2	0	1	0
North Adams Retirement Board	1	0	1	2	0
Northbridge Retirement Board	0	1	0	2	0
Reading Retirement Board	3	1	0	3	0
Saugus Retirement Board	0	0	0	1	0
Southbridge Retirement Board	1	1	0	3	0
Stoneham Retirement Board	0	0	0	1	0
Webster Retirement Board	1	0	0	0	0
Winthrop Retirement Board	1	1	0	0	0
RETIREMENT BOARDS WITH 400–599 ACTIVE MEMBERS					
Belmont Retirement Board	0	1	0	5	0
Concord Retirement Board	1	1	0	2	1
Danvers Retirement Board	4	3	0	3	1
Dedham Retirement Board	2	3	0	4	0
Gloucester Retirement Board	1	0	0	5	0
Greenfield Retirement Board	2	3	0	2	0
Marblehead Retirement Board	0	2	1	2	0
Melrose Retirement Board	1	0	0	3	0
Milford Retirement Board	4	2	0	2	0
Natick Retirement Board	1	1	1	0	0
North Attleboro Retirement Board	1	1	0	4	0
Norwood Retirement Board	2	1	0	6	1
Revere Retirement Board	10	5	1	8	1
Shrewsbury Retirement Board	1	1	0	2	0
Swampscott Retirement Board	2	2	0	2	0
Wakefield Retirement Board	1	1	1	4	0
Winchester Retirement Board	0	1	0	1	0

DISABILITY

RETIREMENT STATISTICS

(as of 12/31/14)

DISABILITY PANEL REQUESTS

DISABILITY RETIREMENT APPROVALS

ACCIDENTAL DEATH APPROVALS

DISABILITY NURSE CME REVIEWS

PHYSICIAN CME/RTS REVIEWS

RETIREMENT BOARDS WITH 600-899 ACTIVE MEMBERS

Andover Retirement Board	2	1	0	3	0
Arlington Retirement Board	7	5	0	8	0
Attleboro Retirement Board	2	5	0	9	0
Beverly Retirement Board	3	3	0	2	1
Braintree Retirement Board	1	0	0	0	0
Chelsea Retirement Board	4	0	2	5	0
Dukes County Contributory Retirement System	1	2	0	2	0
Everett Retirement Board	3	2	0	8	0
Falmouth Retirement Board	1	1	0	7	0
Fitchburg Retirement Board	0	1	0	6	0
Hingham Retirement Board	1	1	0	2	2
Leominster Retirement Board	3	2	0	6	0
Lexington Retirement Board	1	1	0	5	1
Malden Retirement Board	11	8	0	4	0
Marlborough Retirement Board	5	5	0	3	0
Medford Retirement Board	9	8	2	6	0
Methuen Retirement Board	3	2	0	3	1
Needham Retirement Board	3	1	0	1	0
Northampton Retirement Board	2	1	1	2	0
Peabody Retirement Board	2	2	0	4	0
Watertown Retirement Board	6	5	1	6	1
Wellesley Retirement Board	1	1	0	3	0
West Springfield Retirement Board	4	1	0	4	0
Weymouth Retirement Board	2	2	0	5	0
Woburn Retirement Board	2	1	0	2	1

RETIREMENT BOARDS WITH 900-2,399 ACTIVE MEMBERS

Berkshire County Retirement Board	0	0	0	4	0
Brockton Retirement Board	5	3	4	15	0
Brookline Retirement Board	11	7	1	14	1
Chicopee Retirement Board	6	6	0	13	0
Fall River Retirement Board	7	6	3	23	0
Framingham Retirement Board	2	2	2	7	0
Franklin County Retirement Board	1	3	0	5	0
Haverhill Retirement Board	2	1	1	6	1
Holyoke Retirement Board	9	3	1	12	0
Lawrence Retirement Board	4	4	1	6	0
Lowell Retirement Board	10	9	1	23	2
Lynn Retirement Board	13	12	3	18	0

DISABILITY RETIREMENT STATISTICS

(as of 12/31/14)

	DISABILITY PANEL REQUESTS	DISABILITY RETIREMENT APPROVALS	ACCIDENTAL DEATH APPROVALS	DISABILITY NURSE CME REVIEWS	PHYSICIAN CME/RTS REVIEWS
Mass Port Authority Retirement Board	2	2	0	10	0
Mass Water Resource Authority Retirement Board	7	5	0	9	0
New Bedford Retirement Board	9	13	3	26	0
Newton Retirement Board	6	2	1	4	0
Pittsfield Retirement Board	5	2	0	4	1
Plymouth Retirement Board	4	2	2	8	1
Quincy Retirement Board	5	3	1	13	0
Salem Retirement Board	0	1	0	4	0
Somerville Retirement Board	3	2	0	8	0
Taunton Retirement Board	0	0	0	11	0
Waltham Retirement Board	2	4	2	9	0
Westfield Retirement Board	1	2	0	3	0
RETIREMENT BOARDS WITH 2,400-10,000 ACTIVE MEMBERS					
Barnstable County Board of Retirement	15	21	1	44	1
Bristol County Board of Retirement	8	9	1	22	0
Cambridge Retirement Board	14	14	1	19	0
Essex Regional Retirement Board	5	2	0	15	1
Hampden County Regional Retirement Board	7	6	1	7	0
Hampshire County Regional Retirement Board	3	3	0	11	0
Middlesex County Retirement Board	20	19	3	41	1
Norfolk County Retirement Board	21	16	2	20	3
Plymouth County Retirement Board	18	7	3	25	2
Springfield Retirement Board	25	17	0	51	0
Worcester Regional Retirement Board	18	11	3	37	0
Worcester Retirement Board	18	12	3	31	0
RETIREMENT BOARDS WITH 20,500-90,000 ACTIVE MEMBERS					
Boston Retirement Board	75	68	13	91	0
State Retirement Board	143	154	3	420	7
Teachers Retirement Board	36	23	0	21	2
TOTAL ALL RETIREMENT BOARDS:	669	573	72	1,263	34

RESTORATION TO SERVICE STATISTICS *(Provided for those boards where a disability retiree has returned to work.)*

Framingham Retirement Board 1	Hingham Retirement Board 1	Plymouth County Retirement Board 1
State Retirement Board 2		

INVESTMENT VENDORS

- The following is a listing of the investment managers, custodians, and consultants that serve the Massachusetts public pension systems. The listing is based on information supplied by the retirement boards.

RETIREMENT BOARD	INVESTMENT VENDORS		
ADAMS ► Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> American Funds Capital Research and Management 	<ul style="list-style-type: none"> Granite Investment Advisors 	<ul style="list-style-type: none"> Keator Group, LLC
AMESBURY	<ul style="list-style-type: none"> PRIT 		
ANDOVER	<ul style="list-style-type: none"> PRIT 		
ARLINGTON ► Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> PRIT 	<ul style="list-style-type: none"> Wilshire Associates Inc. 	
ATTLEBORO ► Custodian: State Street Bank & Trust ► Consultant: Dahab Associates Inc.	<ul style="list-style-type: none"> Boston Advisors, LLC BTG Pactual Timberland Investment Group Daruma Capital Management, LLC Frontier Capital Management Co., LLC Hancock Natural Resource Group, Inc. 	<ul style="list-style-type: none"> Herndon Capital Management, LLC Invesco Core Real Estate USA, LP Invesco National Trust Company Orleans Capital Management Corp. 	<ul style="list-style-type: none"> PRIT Pyramis Global Advisors, LLC State Street Global Advisors Wells Capital Management Inc.
BARNSTABLE COUNTY	<ul style="list-style-type: none"> Intercontinental Capital Management, LLC 	<ul style="list-style-type: none"> PRIT 	<ul style="list-style-type: none"> UBS Realty Investors, LLC
BELMONT ► Custodian: State Street Bank & Trust ► Consultant: New England Pension Consultants	<ul style="list-style-type: none"> AEW Capital Management, LP Aberdeen Asset Management, Inc. Atlanta Capital Harbourvest Partners, LLC 	<ul style="list-style-type: none"> Loomis Sayles & Company Mondrian Investment Partners Limited Pacific Investment Management Company, LLC 	<ul style="list-style-type: none"> PRIT RhumbLine Advisers Rothschild Asset Management Inc. Scout Capital Management, LLC
BERKSHIRE COUNTY	<ul style="list-style-type: none"> PRIT 		
BEVERLY	<ul style="list-style-type: none"> PRIT 		
BLUE HILLS REGIONAL	<ul style="list-style-type: none"> PRIT 		
BOSTON (CITY) ► Custodian: State Street Bank & Trust ► Consultant: New England Pension Consultants	<ul style="list-style-type: none"> 57 Stars, LLC AEW Capital Management, LP Alladin Credit Partners, LLC Angelo, Gordon & Co., LP Arclight Capital Partners, LLC Ascent Venture Partners Audax Group Blue Point Capital Partners, LLC Boston Company Asset Management, LLC Boston Millennia Partners Brookfield Asset Management Pic Us, LLC Columbia Asset Management CCMP Capital Advisors, LLC Centersquare Investment Management Holdings, Inc. Columbia Management Investment Advisors, LLC Commonwealth Capital Ventures Crescent Capital Group, LP DDJ Capital Management D.E. Shaw Investment Management, LLC DRC Capital, LLP Dune Capital Management, LP Energy Spectrum Partners Entrust Partners, LLC Evercore Advisors, LLC Everwest Real Estate Partners 	<ul style="list-style-type: none"> Federal Street Partners, LLC Fisher Investments Fountain Capital Management, LLC GAM USA, Inc. Goldentree Asset Management, LP Grosvenor Capital Management, LP Hearthstone Inc. Intech Invesco Core Real Estate USA, LP J.F. Lehman & Company, Inc. J.P. Morgan Investment Management, Inc. J.W. Childs Associates, LP LaSalle Investment Management, Inc. Lazard Asset Management, LLC Lexington Partners, LP Loomis Sayles & Company Mesirow Advanced Strategies, Inc. Mesirow Financial Investment Management, Inc. MPM Capital, LP NGP Energy Capital Management, LLC Oaktree Capital Management, LP Panagora Asset Management, Inc. Pearlmark Investment Advisors, LLC Perella Weinberg Partners Capital Management, LP Permal Asset Management, Inc. 	<ul style="list-style-type: none"> Polunin Capital Partners Prudential Capital Partners RhumbLine Advisers Richmond Capital Management, Inc. Sanderling Ventures SCP Private Equity Partners Siguler Guff Advisers, LLC SL Capital Partners State Street Global Advisors Sterling Venture Partners, LLC TA Realty TH Lee Putnam Ventures Thomas H. Lee Partners, LP Thomas Weisel Global Growth Partners, LLC Tristan Capital Partners Vanguard Venture Partners, LLC Vontobel Asset Management, Inc. W Capital Partners Wells Capital Management, Inc. Western Technology Westfield Capital Management Company, LP Westport Capital Partners, LLC Z Capital Partners, LLC Zevenbergen Capital Investments, LLC

RETIREMENT BOARD		INVESTMENT VENDORS	
BOSTON TEACHERS	<ul style="list-style-type: none"> • PRIT 		
BRAINTREE ▶ Custodian: State Street Bank & Trust ▶ Consultant: New England Pension Consultants	<ul style="list-style-type: none"> • Acadian Asset Management, LLC • Lexington Partners, LP • Loomis Sayles & Company 	<ul style="list-style-type: none"> • Massachusetts Financial Services Company • Pictet Asset Management 	<ul style="list-style-type: none"> • PRIT • RhumbLine Advisers
BRISTOL COUNTY ▶ Custodian: State Street Bank & Trust ▶ Consultant: Segal Rogerscasey	<ul style="list-style-type: none"> • Arrowstreet Capital, LP • BlackRock Investment Management, LLC • Brookfield Timberlands Management, LP • CB Richard Ellis Group, Inc. • Colchester Global Investors • Columbia Management Investment Advisers, LLC • DN Partners • Dupont Capital Management • Earnest Partners, LLC • Hancock Timber Resource Group, Inc. • Hunt Investment Management, LLC 	<ul style="list-style-type: none"> • Income Research & Management • Intech • Lazard Asset Management, LLC • LSV Asset Management • Lyrical Asset Management, LP • Massachusetts Financial Services Company • Mesirov Financial Private Equity Advisors, Inc. • New Boston Fund, Inc. • Pacific Investment Management Company, LLC • Polaris Capital Management, LLC 	<ul style="list-style-type: none"> • PRIT • RBC Global Asset Management (U.S.), Inc. • Rice Hall James & Associates, LLC • RREEF Management, LLC • SEI Trust Company • State Street Global Advisors • TA Realty • Timberland Investment Resources, LLC • Trust and Fiduciary Management Services, Inc. • WL Ross & Co., LLC
BROCKTON ▶ Custodian: SEI Private Trust Company	<ul style="list-style-type: none"> • Arsenal Real Estate Partners • Ascent Venture Partners • Boston Capital Ventures • Charlesbank Capital Partners, LLC • Flag Capital Management, LLC • HealthPoint, LLC • Intercontinental Capital Management, LLC 	<ul style="list-style-type: none"> • Invesco Private Capital, Inc. • Landmark Partners, LLC • Levine Leichtman Capital Partners, Inc. • Mesirov Financial Investment Management, Inc. • New Boston Fund, Inc. • New England Capital Partners 	<ul style="list-style-type: none"> • Oppenheimer Alternative Investment Management • SEI Private Trust Company • Siguler Guff Advisers, LLC • State Street Global Advisors • TA Realty
BROOKLINE ▶ Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> • AEW Capital Management, LP • Hancock Timber Resource Group, Inc. • HarbourVest Partners, LLC 	<ul style="list-style-type: none"> • Invesco Private Capital, Inc. • Lexington Partners, LP • PRIT 	<ul style="list-style-type: none"> • Russell Investment Group • Sustainable Woodlands Partners, LLC
CAMBRIDGE ▶ Custodian: State Street Bank & Trust ▶ Consultant: Segal Rogerscasey	<ul style="list-style-type: none"> • AEW Capital Management, LP • Ascent Venture Partners • BlackRock Investment Management, LLC • Brandywine Global Investment Management, LLC • Columbia Management Investment Advisers, LLC • Fred Alger Management, Inc. • Hamilton Lane • Hancock Timber Resource Group, Inc. • Income Research & Management 	<ul style="list-style-type: none"> • Invesco Core Real Estate USA, LP • Landmark Partners, LLC • Lazard Asset Management, LLC • Lexington Partners, LP • MacKay Shields, LLC • MFS Institutional Advisers, Inc. • Penn Square Global Real Estate Group, LLC • Polaris Capital Management, LLC 	<ul style="list-style-type: none"> • PRIT • Pyramid Global Advisors, LLC • RBC Global Asset Management (U.S.), Inc. • RhumbLine Advisers • Rockwood Capital, LLC • State Street Global Advisors • UBS Realty Advisers, LLC • WEDGE Capital Management, LLP
CHELSEA	<ul style="list-style-type: none"> • PRIT 		
CHICOPEE ▶ Custodian: SEI Private Trust Company	<ul style="list-style-type: none"> • PRIT 	<ul style="list-style-type: none"> • SEI Private Trust Company 	
CLINTON ▶ Consultant: Trust Advisory Group, Ltd.	<ul style="list-style-type: none"> • PRIT 		
CONCORD ▶ Custodian: Comerica Securities	<ul style="list-style-type: none"> • Columbia Management Investment Advisers, LLC 	<ul style="list-style-type: none"> • PRIT 	<ul style="list-style-type: none"> • Russell Investment Group
DANVERS ▶ Custodian: State Street Bank & Trust ▶ Consultant: Graystone Consulting	<ul style="list-style-type: none"> • Dalton, Greiner, Hartman, Maher & Co., LLC • Equus Capital Partners, Ltd. • Fidelity Investments Money Management, Inc. • Gerber-Taylor Management Company 	<ul style="list-style-type: none"> • Longfellow Investment Management Co., LLC • Mount Lucas Management, LP • PRIT 	<ul style="list-style-type: none"> • RhumbLine Advisers • Shenkman Capital Management, Inc. • TA Realty

RETIREMENT BOARD	INVESTMENT VENDORS		
DEDHAM	<ul style="list-style-type: none"> PRIT 		
DUKES COUNTY ▶ Custodian: State Street Bank & Trust ▶ Consultant: Dahab Associates, Inc.	<ul style="list-style-type: none"> Atlanta Capital Bradford & Marzec, LLC 	<ul style="list-style-type: none"> Garcia Hamilton & Associates LP Polen Capital Management, LLC 	<ul style="list-style-type: none"> PRIT Vanguard
EASTHAMPTON	<ul style="list-style-type: none"> PRIT 		
ESSEX COUNTY ▶ Custodian: State Street Bank & Trust ▶ Consultant: Dahab Associates, Inc.	<ul style="list-style-type: none"> Ascent Venture Partners BlackRock Investment Management, LLC Boston Millennia Partners Intercontinental Real Estate Corp. 	<ul style="list-style-type: none"> Levine Leichtman Capital Partners, Inc.. MassVentures PRIT 	<ul style="list-style-type: none"> Principal Real Estate Investors, LLC Sentinel Real Estate Corporation TA Realty
EVERETT	<ul style="list-style-type: none"> PRIT 		
FAIRHAVEN	<ul style="list-style-type: none"> PRIT 		
FALL RIVER	<ul style="list-style-type: none"> PRIT 	<ul style="list-style-type: none"> SL Capital Partners, LLP 	
FALMOUTH ▶ Custodian: State Street Bank & Trust ▶ Consultant: Wainwright Investment Counsel, LLC	<ul style="list-style-type: none"> Baring Asset Management (Asia) Limited Denver Investments Dimensional Fund Advisors, LP Earnest Partners, LLC HGK Asset Management, Inc. Intercontinental Real Estate Corp. 	<ul style="list-style-type: none"> Invesco Private Capital, Inc. Lee Munder Capital Group, LLC Lexington Partners, LP Mesirow Financial Private Equity Advisors, Inc. Metropolitan Real Estate Equity Management, LLC PRIT 	<ul style="list-style-type: none"> Principal Real Estate Investors, LLC RhumbLine Advisers SEI Trust Company Seizert Capital Partners, LLC Siguler Guff Advisers, LLC State Street Global Advisors
FITCHBURG	<ul style="list-style-type: none"> PRIT 	<ul style="list-style-type: none"> TA Realty 	
FRAMINGHAM	<ul style="list-style-type: none"> PRIT 		
FRANKLIN COUNTY ▶ Custodian: Comerica Bank ▶ Consultant: Dahab Associates, Inc.	<ul style="list-style-type: none"> Daruma Capital Management, LLC Income Research & Management O'Shaughnessy Asset Management, LLC 	<ul style="list-style-type: none"> Polen Capital Management, LLC PRIT 	<ul style="list-style-type: none"> Seizert Capital Partners, LLC Systematic Financial Management, LP
GARDNER	<ul style="list-style-type: none"> PRIT 		
GLOUCESTER	<ul style="list-style-type: none"> PRIT 		
GREATER LAWRENCE ▶ Custodian: BNY Mellon Asset Servicing	<ul style="list-style-type: none"> Seaward Management 		
GREENFIELD	<ul style="list-style-type: none"> PRIT 		
HAMPDEN COUNTY REGIONAL ▶ Consultant: Segal Rogerscasey	<ul style="list-style-type: none"> GCM Customized Fund Investment Group Invesco Private Capital, Inc. 	<ul style="list-style-type: none"> Long Wharf Real Estate Partners, LLC New Boston Fund, Inc. 	<ul style="list-style-type: none"> PRIT
HAMPSHIRE COUNTY ▶ Consultant: New England Pension Consultants	<ul style="list-style-type: none"> Ascent Venture Partners Babson Capital Management, LLC Colchester Global Investors Grantham, Mayo, Van Otterloo & Company, Inc. Intercontinental Real Estate Corporation Lexington Partners, LP 	<ul style="list-style-type: none"> Massachusetts Financial Services Company Mellon Capital Management Corporation Pacific Investment Management Company, LLC Perella Weinberg Partners Capital Management, LP Permal Capital Management, LLC 	<ul style="list-style-type: none"> Polaris Capital Management, LLC PRIT RBC Global Asset Management (U.S.) Inc. RhumbLine Advisers Shenkman Capital Management, Inc.

RETIREMENT BOARD		INVESTMENT VENDORS	
HAVERHILL ▶ Custodian: State Street Bank & Trust ▶ Consultant: Wainwright Investment Counsel, LLC	<ul style="list-style-type: none"> • Columbia Management Investment Advisors, LLC • Fisher Investments • Global Forest Partners, LP • Globespan Capital Management, Inc. • GrandBanks Capital • Intercontinental Real Estate Corporation 	<ul style="list-style-type: none"> • Massachusetts Financial Services Company • Mesirow Financial Institutional Real Estate • Northwinds Marketing • PRIT • Putnam Investment Management, LLC • RhumbLine Advisers 	<ul style="list-style-type: none"> • Stafford Private Equity, Inc. • Systematic Financial Management, LP • TerraCap Management • TH Lee Partners • Victory Capital Management
HINGHAM ▶ Consultant: Meketa Investment Group	<ul style="list-style-type: none"> • PRIT 		
HOLYOKE ▶ Consultant: Segal Rogerscasey	<ul style="list-style-type: none"> • American Realty Advisors • Boston Company Asset Management, LLC • Brandywine Global Investment Management, LLC • Charles Schwab & Co., Inc. • Constitution Capital Partners, LLC • Denver Investments • Flynn Financial Partners • Industry Capital Advisors, LLC • Intercontinental Real Estate Corporation 	<ul style="list-style-type: none"> • Invesco Core Real Estate USA, LP • Invesco Trust Company • Lazard Asset Management, LLC • Long Wharf Real Estate Partners, LLC • Mesirow Financial Private Equity Advisors, Inc. • Oberweis Asset Management, Inc. • OFI Global Institutional, Inc. • Polaris Capital Management, LLC • PRIT 	<ul style="list-style-type: none"> • Putnam Investment Management, LLC • Pyramis Global Advisors, LLC • RBC Global Asset Management (U.S.) Inc. • Seizert Capital Partners, LLC • State Street Global Advisors • TA Realty • TerraCap Management • Wasatch Advisors, Inc.
HULL	<ul style="list-style-type: none"> • PRIT 		
LAWRENCE	<ul style="list-style-type: none"> • PRIT 		
LEOMINSTER ▶ Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> • Massachusetts Financial Services Company • PRIT 	<ul style="list-style-type: none"> • Templeton Investment Counsel 	<ul style="list-style-type: none"> • Union Labor Life Insurance Company
LEXINGTON ▶ Custodian: State Street Bank & Trust ▶ Consultant: Meketa Investment Group, Inc.	<ul style="list-style-type: none"> • Acadian Asset Management, LLC • Beacon Capital Partners, LLC • Fidelity Investments • Fiduciary Management, Inc. 	<ul style="list-style-type: none"> • Hartford Investment Management Company • Loomis Sayles & Company • Matthews International Capital Management, LLC • Monroe Capital 	<ul style="list-style-type: none"> • Pacific Investment Management Company, LLC • RhumbLine Advisers • Wellington Management Company, LLP
LOWELL ▶ Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> • Ascent Venture Partners • Boston Millennia Partners • Charles River Ventures 	<ul style="list-style-type: none"> • Intercontinental Real Estate Corporation • North Atlantic Capital 	<ul style="list-style-type: none"> • PRIT • Sentinel Real Estate Corporation
LYNN	<ul style="list-style-type: none"> • Ascent Venture Partners • BlackRock Investment Management, LLC • BlackRock Realty Advisors, Inc. 	<ul style="list-style-type: none"> • Fidelity Investments Money Management, Inc. • Hunt Investment Management, LLC • Long Wharf Real Estate Partners, LLC 	<ul style="list-style-type: none"> • PRIT • State Street Global Advisors
MHFA ▶ Custodian: State Street Bank & Trust ▶ Consultant: Meketa Investment Group, Inc.	<ul style="list-style-type: none"> • AEW Capital Management, LP • Ascent Venture Partners • Clarion Partners • Columbia Management Investment Advisors, LLC • Constitution Capital Partners, LLC 	<ul style="list-style-type: none"> • Dimensional Fund Advisors, LP • Goldman Sachs Asset Management, LP • HarbourVest Partners, LLC • Intercontinental Real Estate Corporation • Mackay Shields, LLC 	<ul style="list-style-type: none"> • McDonnell Investment Management, LLC • RS Investment Management Company, LLC • State Street Global Advisors • Stone Harbor Investment Partners, LP • TA Realty
MWRA ▶ Custodian: State Street Bank & Trust ▶ Consultant: New England Pension Consultants	<ul style="list-style-type: none"> • Alcentra NY, LLC • Ascent Venture Partners • Boston Company Asset Management, LLC • Castile Ventures • Cerberus Capital Management, LP • Clearbridge Investments, LLC • Entrust Partners, LLC • Foundry Group, LLP • Intech • Intercontinental Real Estate Corporation 	<ul style="list-style-type: none"> • Invesco Trust Company • Invesco Private Capital, Inc. • Landmark Partners, LLC • Lee Munder Capital Group, LLC • Loomis Sayles & Company • Mesirow Financial Institutional Real Estate • MFS Institutional Advisors, Inc. • Morgan Stanley • Pacific Investment Management Company, LLC • Permal Asset Management, Inc. 	<ul style="list-style-type: none"> • Pinebridge Investments, LLC • PRIT • RhumbLine Advisers • Robeco Institutional Asset Management U.S., Inc. • Schroder Investment Management North America, Inc. • SEI Trust Corporation • TA Realty • Wellington Management Company, LLP • WL Ross & Co., LLC

RETIREMENT BOARD	INVESTMENT VENDORS		
MALDEN ► Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> De Burlo Group, Inc. 		
MARBLEHEAD	<ul style="list-style-type: none"> PRIT 		
MARLBOROUGH ► Custodian: Comerica Securities ► Consultant: Meketa Investment Group, Inc.	<ul style="list-style-type: none"> Boston Company Asset Management, LLC Clarion Partners Dimensional Fund Advisors LP Driehaus Capital Management, LLC Fiduciary Management, Inc. 	<ul style="list-style-type: none"> Frontier Capital Management Co., LLC Neuberger Berman Management, LLC Payden & Rygel Penn Capital Management Company, Inc. 	<ul style="list-style-type: none"> RhumbLine Advisers Shenkman Capital Management, Inc. SL Capital Partners, LLP State Street Global Advisors
MASSPORT ► Custodian: State Street Bank & Trust ► Consultant: Wilshire Associates	<ul style="list-style-type: none"> Aberdeen Asset Management, Inc. PRIT 	<ul style="list-style-type: none"> Pzena Investment Management, LLC State Street Global Advisors 	<ul style="list-style-type: none"> Wellington Management Company, LLP
MAYNARD ► Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> Boston Advisors, LLC 	<ul style="list-style-type: none"> PRIT 	<ul style="list-style-type: none"> Sequin Partners, LLC
MEDFORD ► Custodian: State Street Bank & Trust ► Consultant: New England Pension Consultants	<ul style="list-style-type: none"> Columbia Management Investment Advisors, LLC Lazard Asset Management, LLC Loomis Sayles & Company 	<ul style="list-style-type: none"> Mellon Capital Management Corporation Pacific Investment Management Company, LLC PRIT 	<ul style="list-style-type: none"> RhumbLine Advisers Wellington Management Company, LLP Western Asset Management Company
MELROSE ► Consultant: Segal Rogerscasey	<ul style="list-style-type: none"> Ascent Venture Partners Hunt Investment Management, LLC Intercontinental Real Estate Corporation 	<ul style="list-style-type: none"> Invesco Private Capital, Inc. PRIT 	<ul style="list-style-type: none"> State Street Global Advisors TA Realty
METHUEN	<ul style="list-style-type: none"> BlackRock Investment Management, LLC 	<ul style="list-style-type: none"> PRIT 	<ul style="list-style-type: none"> Sentinel Real Estate Corporation
MIDDLESEX COUNTY ► Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> Alliance Technology Ventures Ares Management, LLC Ascent Venture Partners Auda Private Equity, LLC Boston Millennia Partners 	<ul style="list-style-type: none"> Duke Street Capital Global Forest Partners, LP Globespan Capital Management, Inc. Hunt Investment Management, LLC Intercontinental Real Estate Corporation 	<ul style="list-style-type: none"> Invesco Private Capital, Inc. North Atlantic Capital PRIT TA Realty TH Lee Partners
MILFORD	<ul style="list-style-type: none"> PRIT 		
MILTON	<ul style="list-style-type: none"> PRIT 		
MINUTEMAN REGIONAL	<ul style="list-style-type: none"> PRIT 		
MONTAGUE	<ul style="list-style-type: none"> PRIT 		
NATICK ► Custodian: State Street Bank & Trust ► Consultant: Fiduciary Investment Advisors, LLC	<ul style="list-style-type: none"> Intercontinental Real Estate Corporation PRIT 	<ul style="list-style-type: none"> SEI Private Trust Company Sentinel Real Estate Corporation 	<ul style="list-style-type: none"> SL Capital Partners, LLP
NEEDHAM	<ul style="list-style-type: none"> PRIT 		
NEW BEDFORD ► Custodian: State Street Bank & Trust ► Consultant: Segal Rogerscasey	<ul style="list-style-type: none"> Aberdeen Asset Management, Inc. Acadian Asset Management, LLC Blackrock Realty Advisors, Inc. Boston Company Asset Management, LLC Hunt Investment Management, LLC Invesco Private Capital, Inc. 	<ul style="list-style-type: none"> Loomis Sayles & Company Mesirow Private Equity Advisors, Inc. Pacific Investment Management Company, LLC SEI Trust Company State Street Global Advisors Limited 	<ul style="list-style-type: none"> TA Realty UBS Realty Investors, LLC Wellington Management Company, LLP Westfield Capital Management Company, LP Wilton Asset Management, LLC

RETIREMENT BOARD		INVESTMENT VENDORS	
NEWBURYPORT	<ul style="list-style-type: none"> • PRIT 		
NEWTON	<ul style="list-style-type: none"> • Long Wharf Real Estate Partners, LLC 	<ul style="list-style-type: none"> • PRIT 	
NORFOLK COUNTY ▶ Custodian: State Street Bank & Trust ▶ Consultant: Wainwright Investment Counsel, LLP	<ul style="list-style-type: none"> • AGF Investments America • Allianz Global Investors Fund Management, LLC • ArcLight Capital Partners, LLC • Ascend Ventures Group, LLC • Boston Millennia Partners • Centersquare Investment Management Holdings, Inc. • Centre Lane Partners, LLC • CHL Medical Partners • Clarion Partners • Collier Investment Management, Ltd. • Constitution Capital Partners, LLC • Copper Rock Capital Partners, LLC • Corsair Capital LLC • D.E. Shaw Investment Management, LLC • Denver Investments • DSF Group • Fisher Investments • Gamco Asset Management, Inc. 	<ul style="list-style-type: none"> • Gerding Edlen Investment Management, LLC • Globespan Capital Management, Inc. • Halpern, Denny & Company • Hamilton Lane • Hunt Investment Management, LLC • Income Research & Management • Inflection Point Ventures • Intercontinental Real Estate Corporation • Invesco Private Capital, Inc. • Kleinwort Benson Investors International, Ltd. • Lazard Asset Management, LLC • Lee Munder Capital Group, LLC • Levine Leichtman Capital Partners, Inc. • LLM Capital Partners • Loomis, Sayles & Company • Mesirow Advanced Strategies, Inc. • Mesirow Capital Partners X, LP • Mesirow Financial Institutional Real Estate • MFS International Advisors, Inc. 	<ul style="list-style-type: none"> • Monitor Venture Management • Northern Trust • Preferred Investors • PRIT • PRISM Venture Partners • Putnam Investment Management, LLC • RhumbLine Advisers • Seizert Capital Partners, LLC • Sentinel Real Estate Corporation • Siguler Guff Advisors, LLC • SL Capital Partners, LLP • State Street Global Advisors • TA Realty • TerraCap Management • Victory Capital Management • Wellesley Advisors Corporation • Wells Capital Management, Inc. • Wilshire Associates, Inc.
NORTH ADAMS ▶ Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> • De Burlo Group, Inc. 	<ul style="list-style-type: none"> • PRIT 	
NORTH ATTLEBORO ▶ Custodian: State Street Bank & Trust ▶ Consultant: Dahab Associates, Inc.	<ul style="list-style-type: none"> • AmSouth Bank • Atlanta Capital • Axiom International Investors, LLC • Blackrock Realty Advisors, Inc. • Brandes Investment Partners, LP 	<ul style="list-style-type: none"> • Herndon Capital Management, LLC • Intercontinental Real Estate Corporation • Lazard Asset Management, LLC • Loomis Sayles & Company 	<ul style="list-style-type: none"> • Navellier & Associates, Inc. • RhumbLine Advisers • Stewart Capital Advisors, LLC • Vontobel Asset Management, Inc.
NORTHAMPTON ▶ Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> • De Burlo Group, Inc. 	<ul style="list-style-type: none"> • PRIT 	
NORTHBRIDGE	<ul style="list-style-type: none"> • PRIT 		
NORWOOD ▶ Custodian: State Street Bank & Trust ▶ Consultant: Meketa Investment Group, Inc.	<ul style="list-style-type: none"> • Aberdeen Asset Management, Inc. • Atlanta Capital • Boston Company Asset Management, LLC • Dimensional Fund Advisors, LP 	<ul style="list-style-type: none"> • Landmark Partners, LLC • Oaktree Capital Management, LP • PRIT 	<ul style="list-style-type: none"> • RhumbLine Advisers • Vontobel Asset Management, Inc. • Winslow Capital Management, LLC
PEABODY	<ul style="list-style-type: none"> • PRIT 		
PITTSFIELD ▶ Consultant: Fiduciary Investment Advisors, LLC	<ul style="list-style-type: none"> • Hunt Investment Management, LLC • PRIT 	<ul style="list-style-type: none"> • Sentinel Real Estate Corporation 	<ul style="list-style-type: none"> • SL Capital Partners, LLP
PLYMOUTH ▶ Custodian: State Street Bank & Trust ▶ Consultant: Fiduciary Investment Advisors, LLC	<ul style="list-style-type: none"> • Acadian Asset Management • Babson Capital Management • Blackrock Kelso Capital Advisors, LLC • Boston Advisors, LLC • Boston Trust Investment Management, Inc. 	<ul style="list-style-type: none"> • Intercontinental Real Estate Corporation • Invesco Advisors, Inc. • Invesco Trust Company • Mackay Shields, LLC • PRIT 	<ul style="list-style-type: none"> • Robeco Institutional Asset Management U.S., Inc. • State Street Global Advisors • Templeton Investment Counsel • Wellington Management Company, LLP • Westfield Capital Management Company, LP

RETIREMENT BOARD	INVESTMENT VENDORS		
<p>PRIM</p> <p>► Custodian: BNY Mellon</p> <p>► Consultants: Arden Asset Management LLC, Callan Associates, Hamilton Lane, NEPC, Townsend</p>	<ul style="list-style-type: none"> • 1818 Fund • Acadian • Acadian Asset Management, LLC • Access Capital • Acon Investments • Advent International • AEW Capital Management • AFL-CIO Housing Investment Trust • Alchemy Partners • Alta Communications • Anchorage Capital, LLC • Angelo Gordon • APAX Partners & Co. • Apollo Management Co. • Arden Asset Management • Arrowgrass G.P. Limited • Ascend Capital, LP • Ascent Venture Partners • Ashmore Investment Management, Ltd. • Asia Pacific Trust • Austin Ventures • Avenue Capital Group • Baillie Gifford • Bain Capital • Battery Ventures • Belmont Capital Partners • Berkshire Partners • Blackrock Financial Management, Inc. • Blackstone Capital Partners • Blackstone Group • BlueCrest Capital Limited • Boston Ventures • Brevan Howard G.P. Limited • Bridgepoint Capital Limited • Brigade Capital G.P., LLC • Campbell Group, LLC • Candover • Cantab Capital Partners, LP • Canyon Johnson II • Capital Resource Lenders • Capula Management Limited • Carlyle Group • Carlyle Partners • Castille • Catalyst Investors • Centerbridge • Centerbridge Special Credit Partners • CenterSquare Investment Management • Charlesbank Capital Partners • Charles River Ventures • Charterhouse Group • Chequers • City of London Investment Management Co. • Claren Road Capital, LLC • Code, Hennessey & Simmons • Commonwealth Capital Ventures • Community Capital Management • Crescent Capital Group • Crossroads Group • CSFB Private Equity (DLJ Merchant Banking Partners) • CVC Capital • Cypress Merchant Banking Partners • Davidson Kempner Advisors, Inc. • Denham Capital Management 	<ul style="list-style-type: none"> • DivcoWest • Driehaus Capital Management, LLC • Eaton Vance Institutional Funds • El Dorado Ventures • Elliot Capital Advisors, LP • Emerging Markets Management • Equitable Capital Management Corporation • Essex Woodlands Health Ventures • Ethos Private Equity • Exponent Private Equity Partners • Fidelity Management Trust Company • FIS Group, Inc. • First Reserve Corporation • Flagship Ventures • Forest Investment Associates • Frontier Capital Management • Freeman Spogli Equity Partners • GENSTAR Capital • Gilde Buy Out Partners AG • Glenview Capital G.P., LLC • Gores Capital • GSO Capital Partners • GTCR Golder Rauner • Harbourvest Partners • Harding Loevner • Hellman & Friedman Capital Partners • H.I.G. Capital Partners • Highfields Associates, LLC • Highland Capital Partners • Hony Capital • Huber Capital • Index Ventures • ING Investment Management • Insight Venture Partners • Intech • Intercontinental IV • InterWest Partners • Invesco Realty Advisors • Investec Asset Management • Jennison Associates • Joseph Littlejohn & Levy Fund • J.P. Morgan Investment Management • Kelso & Company • Kepha Partners • Keytone Ventures • King Street Capital Management • Kohlberg Kravis Roberts and Co. • KPS Capital Partners • Landmark Equity Partners • LaSalle Investment Management • Loomis, Sayles & Company • Madison Dearborn Capital Partners • Marathon Asset Management, Ltd. • M/C Venture Partners • Menlo Ventures • MFA Partners APA German European Ventures • Mondrian Investment Partners Ltd. • Montagu • Montreux Equity Partners • Nash & Sells • Nautic Partners • New Boston Urban Fund I • New Enterprise Associates • Nordic Capital 	<ul style="list-style-type: none"> • Oaktree Capital Management • Odyssey Investment Partners • Olympus Partners • Onex Capital Partners • OZ Advisors, LP • Pacific Alternative Asset Management Co. (PAAMCO) • Pacific Investment Management Co. (PIMCO) • PAI Europe • Permira Ventures • Pershing Square G.P., LLC • Pictet Asset Management, Inc. • Polaris Venture Partners • Providence Equity Partners • Pzena Investment Management • Quad-C Management • Rembrandt Venture Partners • Riverbridge Partners • Rock Creek Group • Russell Implementation Source • SAIF Partners • Samlyn Partners, LLC • SCP Vitalife • Sherkman Capital Management • Sherbrooke Capital • Sofinnova Ventures, Inc. • SouthernSun Asset Management • Spark Capital • Spectrum Equity Partners • State Street Global Advisors • Steadfast Capital Management LP • Stone Harbor Investment Partners LP • Summit Creek Advisors • Summit Ventures • SV Life Sciences Advisors • TA Associates/Advent • TA Realty • Taconic Associates, LLC • Technology Crossover Ventures • Texas Pacific Group • Thoma Bravo • Thoma Cressey Partners • Thomas H. Lee Equity Partners, LP • Torquest Partners • Towerbrook Capital Partners • Trident Capital • Trust Company of the West • T. Rowe Price • Union Square Ventures • VantagePoint Partners • Venture Capital Fund of New England • Vestar Capital Partners • Vista Equity Partners • Wasatch Advisors Inc. • Wayzata Investment Partners • Welsh, Carson, Anderson & Stowe • Weston Presidio Capital • WestView Capital Partners • Whitney & Company • William Blair Mezzanine Capital Fund, LP • Willis Stein • Winton Capital Management • Xenon Private Equity, LTD • York Capital Management

RETIREMENT BOARD		INVESTMENT VENDORS	
PLYMOUTH COUNTY ▶ Custodian: State Street Bank & Trust ▶ Consultant: Wainwright Investment Counsel, LLC	<ul style="list-style-type: none"> • ABS Investment Management, LLC • Aetos Capital, LLC • Akina Limited • Ascend Venture Group • Ascent Venture Partners • Berkshire Property Advisors, LLC • Boston Company Asset Management, LLC • BTG Pactual Timberland Investment Group • Charles River Ventures • Denver Investments • DN Partners • DSF Group • Eaton Vance Investment Counsel • Fisher Investments 	<ul style="list-style-type: none"> • Franklin Templeton Investment Management • Geneva Capital Management, Ltd • Globespan Capital Management, Inc. • HGK Asset Management, Inc. • Hunt Investment Management, LLC • Income Research & Management • Intercontinental Real Estate Corporation • Invesco Trust Company • J.P. Morgan Investment Management, Inc. • Kleinwort Benson Investors International, Ltd. • Landmark Partners, LLC • Lee Munder Capital Group, LLC • Leeds Equity Partners • Levine Leichtman Capital Partners, Inc. 	<ul style="list-style-type: none"> • Lexington Partners, LP • McDonnell Investment Management, LLC • Mesirow Financial Capital Partners X, LP • Mesirow Financial Institutional Real Estate • New Boston Fund, Inc. • Newtower Trust Company • Prudential Real Estate Investors • RhumbLine Advisers • Rohatyn Group • SEI Trust Company • Siguler Guff Advisers, LLC • THL Credit Advisors, LLC • TimberVest, LLC • Wellesley Advisors Corporation
QUINCY ▶ Custodian: State Street Bank & Trust ▶ Consultant: Meketa Investment Group, Inc.	<ul style="list-style-type: none"> • Aberdeen Asset Management, Inc. • Acadian Asset Management, LLC • Adams Street Partners, LLC • AEW Capital Management, LP • Beach Point Capital Management, LP • Copper Rock Capital Partners, LLC • Earnest Partners, LLC 	<ul style="list-style-type: none"> • Goldman Sachs Asset Management, LP • Hancock Timber Resource Group, Inc. • Harbor Funds • Loomis Sayles & Company • Nichols Asset Management, LLC • Oppenheimer Alternative Investment Management 	<ul style="list-style-type: none"> • PRIT • RhumbLine Advisers • SL Capital Partners, LLP • State Street Global Advisors • Stone Harbor Investment Partners, LP • TA Realty • UBS Realty Investors, LLC
READING	<ul style="list-style-type: none"> • PRIT 		
REVERE	<ul style="list-style-type: none"> • PRIT 		
SALEM ▶ Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> • Ascent Venture Partners 	<ul style="list-style-type: none"> • Long Wharf Real Estate Partners, LLC 	<ul style="list-style-type: none"> • PRIT
SAUGUS	<ul style="list-style-type: none"> • PRIT 		
SHREWSBURY ▶ Consultant: Dahab Associates, Inc.	<ul style="list-style-type: none"> • PRIT 		
SOMERVILLE ▶ Custodian: Comerica Securities	<ul style="list-style-type: none"> • Congress Asset Management Company, LLP • Lazard Asset Management, LLC 	<ul style="list-style-type: none"> • Loomis Sayles & Company • RhumbLine Advisers 	<ul style="list-style-type: none"> • UBS Realty Investors, LLC
SOUTHBRIDGE	<ul style="list-style-type: none"> • PRIT 		
SPRINGFIELD ▶ Custodian: PeoplesBank	<ul style="list-style-type: none"> • Boston Millennia Partners • Crescendo Ventures Management, LLC 	<ul style="list-style-type: none"> • DN Partners 	<ul style="list-style-type: none"> • PRIT
STATE	<ul style="list-style-type: none"> • PRIT 		
STATE TEACHERS	<ul style="list-style-type: none"> • PRIT 		
STONEHAM	<ul style="list-style-type: none"> • PRIT 		
SWAMPSCOTT ▶ Custodian: State Street Bank & Trust ▶ Consultant: Fiduciary Investment Advisors, LLC	<ul style="list-style-type: none"> • Fred Alger Management, Inc. • Intercontinental Real Estate Corporation 	<ul style="list-style-type: none"> • North Sky Capital, LLC • PRIT 	<ul style="list-style-type: none"> • Trust and Fiduciary Management Services, Inc.

RETIREMENT BOARD	INVESTMENT VENDORS		
TAUNTON ▶ Custodian: State Street Bank & Trust ▶ Consultant: Dahab Associates, Inc.	<ul style="list-style-type: none"> • BlackRock Investment Management, LLC • Boston Millennia Partners • Brandywine Global Investment Management, LLC • Ceres Partners, LLC • C.S. McKee, LP • Daruma Capital Management, LLC • Denver Investments 	<ul style="list-style-type: none"> • Earnest Partners, LLC • Glovista Investments, LLC • Herndon Capital Management, LLC • Intercontinental Real Estate Corporation • Invesco Core Real Estate USA, LP • Invesco Trust Company • Invesco Private Capital, Inc. 	<ul style="list-style-type: none"> • Long Wharf Real Estate Partners, LLC • Molpus Woodlands Group, LLC • State Street Global Advisors • Systematic Financial Management, LP • TimberVest, LLC • Victory Capital Management • Vontobel Asset Management, Inc.
WAKEFIELD	<ul style="list-style-type: none"> • PRIT 		
WALTHAM ▶ Custodian: State Street Bank & Trust ▶ Consultant: Fiduciary Investment Advisors, LLC	<ul style="list-style-type: none"> • Ascent Venture Partners • Hunt Investment Management, LLC • Intercontinental Real Estate Corporation 	<ul style="list-style-type: none"> • Invesco Private Capital, Inc. • Precision Capital Advisors, LLC 	<ul style="list-style-type: none"> • PRIT • RCP Advisors, LLC
WATERTOWN ▶ Custodian: State Street Bank & Trust ▶ Consultant: Fiduciary Investment Advisors, LLC	<ul style="list-style-type: none"> • Acadian Asset Management, LLC • Auda Private Equity, LLC • Blackrock Advisors, LLC • Brandywine Global Investment Management, LLC • Columbia Management Investment Advisors, LLC • Earnest Partners, LLC • Everwest Real Estate Partners 	<ul style="list-style-type: none"> • Fisher Investments • Guggenheim Partners Investment Management, LLC • Income Research & Management • Intercontinental Real Estate Corporation • Lee Munder Capital Group, LLC 	<ul style="list-style-type: none"> • Massachusetts Financial Services Company • New Boston Fund, Inc. • PRIT • RCP Advisors, LLC • SEI Trust Company • Wellington Management Company, LLP
WEBSTER ▶ Custodian: State Street Bank & Trust ▶ Consultant: Wainwright Investment Counsel, LLC	<ul style="list-style-type: none"> • Eaton Vance Investment Counsel • HGK Asset Management Inc. • Invesco Trust Company 	<ul style="list-style-type: none"> • Lee Munder Capital Group, LLC • Loomis Sayles & Company • PRIT 	<ul style="list-style-type: none"> • RhumbLine Advisers • SEI Trust Company • USB Asset Management
WELLESLEY	<ul style="list-style-type: none"> • PRIT 		
WEST SPRINGFIELD ▶ Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> • AmSouth Bank 	<ul style="list-style-type: none"> • De Burlo Group, Inc. 	<ul style="list-style-type: none"> • PRIT
WESTFIELD	<ul style="list-style-type: none"> • Boston Company Asset Management, LLC • Charles Schwab & Co., Inc. • Columbia Management Investment Advisors, LLC • Constitution Capital Partners, LLC • Fisher Investments • Flynn Financial Partners • Hamilton Lane 	<ul style="list-style-type: none"> • Income Research & Management • Intercontinental Real Estate Corporation • Invesco Advisers, Inc. • Iridian Asset Management, LLC • Lazard Asset Management, LLC • Loomis Sayles & Company • Polaris Capital Management, LLC 	<ul style="list-style-type: none"> • PRIT • RBC Global Asset Management (U.S.), Inc. • State Street Global Advisors • TerraCap Management • Wasatch Advisers, Inc. • Wells Capital Management, Inc.

RETIREMENT BOARD	INVESTMENT VENDORS		
WEYMOUTH ► Custodian: State Street Bank & Trust ► Consultant: Fiduciary Investment Advisors, LLC	<ul style="list-style-type: none"> • Aberdeen Asset Management, Inc. • Acadian Asset Management, LLC • BlackRock Advisors, LLC • Boston Company Asset Management, LLC • Bradford & Marzec, LLC • Brandywine Global Investment Management, LLC • Constitution Capital Partners, LLC • Earnest Partners, LLC 	<ul style="list-style-type: none"> • HarbourVest Partners, LLC • Intercontinental Real Estate Corporation • Invesco Private Capital, Inc. • Landmark Partners, LLC • Loomis Sayles & Company • OFI Global Institutional, Inc. • Penn Capital Management Company, Inc. • Pioneer Institutional Asset Management Inc. 	<ul style="list-style-type: none"> • PRIT • RhumbLine Advisers • RS Investment Management Company, LLC • Singular Guff Advisers, LLC • State Street Global Advisors • Westfield Capital Management Company, LP • William Blair & Company, LLC
WINCHESTER ► Custodian: State Street Bank & Trust	<ul style="list-style-type: none"> • Guggenheim Real Estate, LLC • PRIT 	<ul style="list-style-type: none"> • State Street Global Advisors • TA Realty 	<ul style="list-style-type: none"> • Wellington Management Company, LLP
WINTHROP	<ul style="list-style-type: none"> • PRIT 		
WOBURN ► Custodian: State Street Bank & Trust ► Consultant: Wainwright Investment Counsel, LLC	<ul style="list-style-type: none"> • Alliance Bernstein, LP • Charlesbank Capital Partners, LLC • Earnest Partners, LLC • Hunt Investment Management, LLC • Intercontinental Real Estate Corporation 	<ul style="list-style-type: none"> • Invesco Private Capital, Inc. • Loomis Sayles & Company • PRIT • RhumbLine Advisers • RS Investment Management Company, LLC 	<ul style="list-style-type: none"> • Stafford Private Equity Inc. • State Street Global Advisors • TA Realty • Wilshire Associates, Inc.
WORCESTER ► Custodian: State Street Bank & Trust ► Consultant: Meketa Investment Group, Inc.	<ul style="list-style-type: none"> • Acadian Asset Management, LLC • Aetos Capital, LLC • AEW Capital Management, LP • American Securities, LLC • Ares Management, LLC • Ascent Venture Partners • Boston Millenia Partners • BTG Pactual Timberland Investment Group, LLC • Capital International, Inc. • Charlesbank Capital Partners, LLC • Dimensional Fund Advisors, LP 	<ul style="list-style-type: none"> • Hancock Natural Resource Group, Inc. • Harvest Partners, LP • Heitman Capital Management, LLC • Income Research + Management • Intercontinental Real Estate Corporation • Invesco Core Real Estate USA, LP • Invesco Private Capital, Inc. • Lazard Asset Management, LLC • Lee Munder Capital Group, LLC • Loomis Sayles & Company 	<ul style="list-style-type: none"> • Newstone Capital Partners, LLC • Nichols Asset Management LLC • Northstar Company, LLC • Pacific Investment Management Company, LLC • Penn Capital Management Company, Inc. • PRIT • Riverside Company • SL Capital Partners, LLP • State Street Global Advisors • Vitruvian Partners, LLP • White Deer Energy
WORCESTER REGIONAL	<ul style="list-style-type: none"> • AEW Capital Management, LP • Ascent Venture Partners • Hunt Investment Management, LLC 	<ul style="list-style-type: none"> • Intercontinental Real Estate Corporation • PRIT 	<ul style="list-style-type: none"> • SL Capital Partners, LLP • TA Realty

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